

doc. 94

Anticosti

June 1908.

Victoria - Quebec

Larry Captain Belange

Louis Basin.

Stanislas Poirier

Zephirin Lemieux

de Lucas about Blue Fox Culture  
for Mr Malouin.

3019

Trip to  
Anticosti 1908.

Charles Schuchert  
Yale University  
Peabody Museum  
New Haven,  
Connecticut  
U.S.A.

[+ Quebec area]

\* means sent my Anticosti paper  
to them on July 10-1911.

Mr. J. H. Lomieux  
Smith West Point,  
Anticosti.

\* Mr. J. H. Lomieux } Light  
Smith West Point, } keeper  
Anticosti.

\* Capt. G. Bateham  
Saspe Basin, Saspe, Quebec

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George F. Kitson  
Advocate, Quebec.  
92 St. Pierre

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\* Henry Menier  
8 Rue Alfred de Signy  
Paris France

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\* Mr. Alfred Malouin  
in charge of Anticosti  
West Point, Anticosti

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D. Joseph Schmitt.  
West Point, Anticosti,

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L. F. Rolle, Auburn, N.Y.

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\* Doct. Georges Gratier-Jede  
West Point  
Anticosti.



Photographs

Film I

~~A.S. Ridpath Men. Rear view. Dark day 16 time. Rest.~~

Ch. 52 — First — H. 1.

1-10 Champlain statue in front of the Frontenac.  
Dist. 16.

1-9 The compl. in Iron Quebec. 80 m. high in 16 snop. S. Tailus

1-7 The letter of Montmaurici. Rep to H. L. Prof 16 clous.

1-8 Mount Morris Falls

1-6 " "

1-5 Done 5 Times  $\frac{1}{32}$

1=4 " 6 " 4, noted

1-4 " 6 " " Neopora  
1-3 Contact of Trenton on Laurentian at Montserrat Falls,  
8 st. S. Snap.

1-2 The whale factory near Clarke City station near  
Seven Islands City. A little whale in want  
and a larger one cut up.

1-1 The village of Seven Islands

Film II.

2. 1/2 Ellis Bay map. The end, are Sandreux house.

2-11 O. R. Light breeze from the west.

2-10 East Cliffs to entrance of Poplar River valley.

2-8, 2-9 Jupiter River cliffs. Part B 1/16 looking West  
East

[illegible]

2-6 " " trout fishing.

2-5 " Am first 2 anchors.

2-3, 2-4 " delta. looking north.

2-2 " " looking east along shore

2-1 " " Camp.

# Film III

- 3-12 Another scene view of Jupiter R. valley. Dark day Noford  
 3-11 " " " " " " " "  
 3-10 Williams and Porter returning with one bag of  
 Juncos Forks.  
 3-9 Dr. Gumpert house at Salt Lake.  
 3-8 The cattle ship Ontario at J.R. Light House. Noford  
 3-7 Sun River camp. } 6 P.M.  
 3-6 Sun River at mouth. }  
 3-5 A low shore conifer showing wind effect and bears nests.  
 3-4 Same as 9 from the fresh side Noford  
 3-3 The beach, drift wood, and the forest of the sea slope  
 Salt '32 6.15 P.M.  
 3-1, 3-2 Sun River cliffs just west of camp B. '32 6.30 P.M.

# Film IV

- 4-12 Sun River camp at low tide. P.M. too much time } 4/32 Noford  
 4-11 " " " " " " " " } B.  
 4-10 " " " " " " " "  
 4-8, 4-9 " " " " " " " "  
 4-3, 4-7 " " " " " " " "  
 4-2 " " " " " " " "  
 4-1 " " " " " " " "

# Film V

- 5-12 (Morgan) I think  
 5-11 " " " " " " " "  
 5-6 H. Anne A. Lumber bridge just at Moose River.  
 5-7 Panayee of King Edward.  
 5-5, 5-10 " " " " " " " "  
 5-8 " " " " " " " "  
 5-9 " " " " " " " "  
 5-2, 5-4 " " " " " " " "  
 5-1 " " " " " " " "

## Film VI

6-8+6-12 About St Anne de Beaupré. Phil says 3 a duplicate.

6-5-7 { Views on the upper plain with the Laurentides not more than 1/2  
miles away.

6-4 St. Anne from the upper farms a level.

6-6-2 The third conglomerate in L'Anse à Louis.

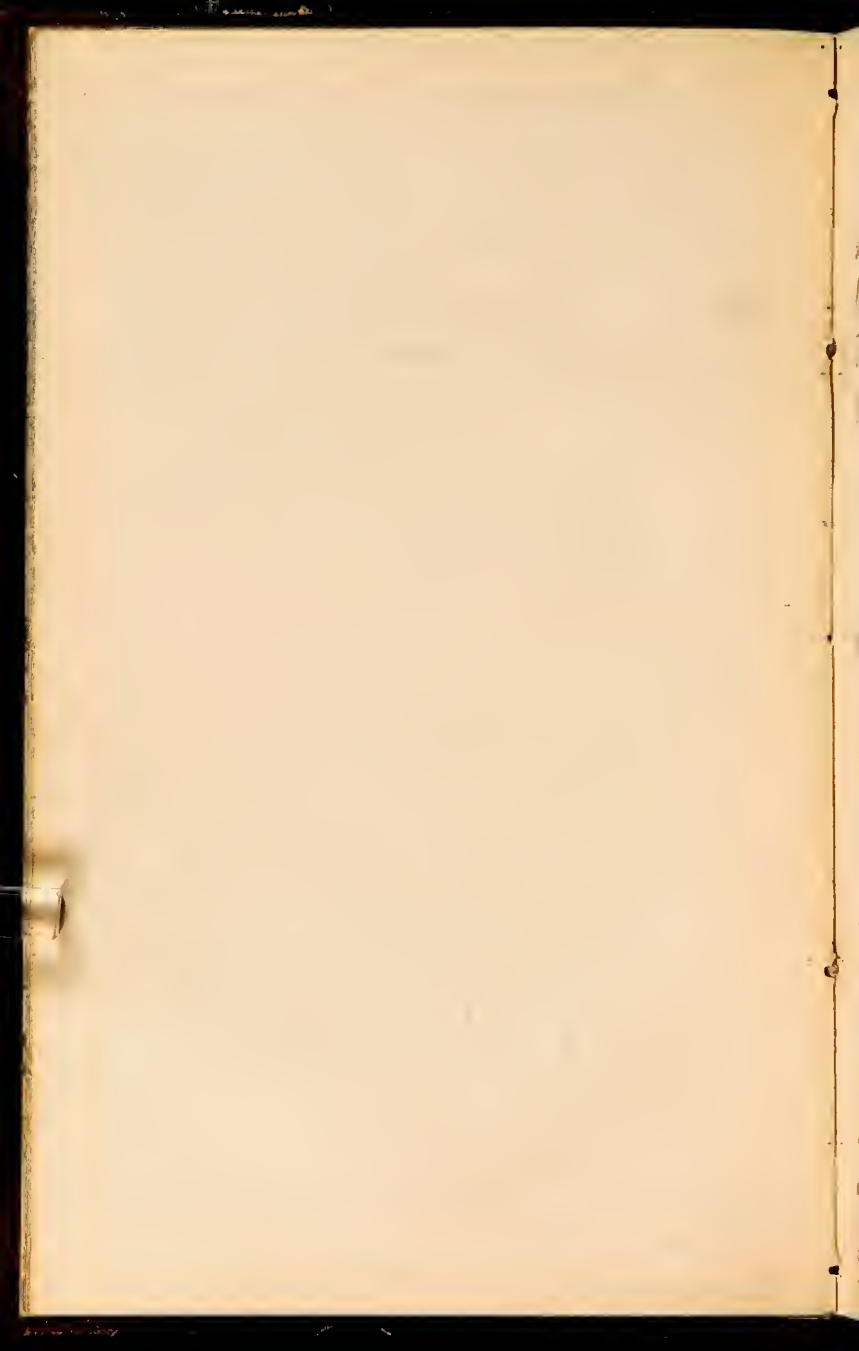
## Film VII.

1 Conglomerate at Louis Point.

2 Steam at Irénée. Montpelier-Duclos stream.







New Haven, May 30-1908

Left for Montreal via Springfield at 5.45 P.M. One hour wait at the latter place where one gets the sleeper. The route is via Bellows Falls, Rutland, and Burlington to Montreal.

May 31 - 1908

Arrived at 7.11. A.M. after a good night's rest in the sleeper.

Transferred my baggage to the C. P. R., Paz deover Station for Quebec.

The day is dark and almost raining. Started out to see the city. Looked up McGill University and took two photos of Peter Redpath Museum.

Then climbed up to the top of Mount Royal said to be 800' above the sea or 700' above the river. If the day was clear the outlook would have been great. Mount Royal is situated almost alone in a great plain through which flows the St. Lawrence. Far over on the South side of the river are to be seen the Lockport Mts.

As one goes of Mount Royal considerable heavy bedded limestone is to be seen. This dark to light blue, dense, fracturing conchoidally and gives one the lithic impression of the Louville. Higher up the beds become cherty but nowhere did I see fossils to remind me of the Trenton. The top of the Mountain has a fine crystalline volcanic. There is about 300' feet of this capping.

Amie states that all is Trenton and that it has been elevated by the volcanic action above the regular horizon of the Trenton about 4000 feet. See if Adams agrees to this.

Spring of Mount Royal every now and then one sees small dikes cutting the dense limestone.

Purchased a number<sup>(8)</sup> of Adams' photos.

Left for Quebec at 2 P.M. on the C. P. R. Arrived at 7.10 P.M.

Extensive quarries in the Trenton several miles east of Montreal on the C. P. R. Triggs also go here. There should be good collecting here. The place is probably "Mile End" which is five miles east of the city.

For two hours<sup>on the P.R.R.</sup> this morning into Montreal, then from Mount Royal and now again going east

to Quebec one side <sup>the Ordovician plain</sup> was a plain. There is  
no reason why the Ordovician <sup>and subsequent</sup> seas should not  
have spread far and wide over the St. Lawrence  
valley. This because of its present low attitude.

In most places along the St. Lawrence the  
plain is flat and rises gently north. It is a  
soft rich ground = "St. Lawrence" glacial deposits.  
Wherever the higher ground appears it is either  
Trenton or glacial boulders.

West of Louisville <sup>E</sup> there is a flat  
topped ridge <sup>is that the Ordovician plain?</sup> probably more than 100 feet high.  
To the south of this is the same flat plain  
of glacial clay. The ridge may have been a  
former bounding wall of the St. Lawrence.

Near Portneuf or 138 miles E. of  
Montreal the topography changes and the country  
becomes more hilly and higher. The river too  
is in a deep canyon. The broad Ordovician  
plain is almost gone and from here east the topog-  
raphy becomes more and more that of a hilly  
Quebec. Later it is probable that the Ordovician plain lies farther  
to the north.

I saw no more Trenton like exposures much  
farther east than Three Rivers.

Very cool here <sup>at Quebec</sup> a few shalloes all over.

The land b'nd between the St. Joseph and the island  
of Orleans

Showing the various river branches.

North branch of St. Lawrence

Head of Orleans.

South branch of St. Lawrence

Levis on the head

Levis

St. Lawrence River.

Quebec

Quebec June 1 - 1908. Monday

Slept last night under enough cover for winter weather. Quite cool this morning and nearly all are wearing overcoats.

Called on Mr. George F. Sibson 92 St Pierre St. It seems that either my letter or some other application was not in good form to please his French <sup>Monsieur Meunier</sup> demands, and he said to Sibson that he did not care to answer the letter. There are four applications one from Montreal (apparently Prof. Adams) one from Boston etc. <sup>Later Mr. Lagoy seems to doubt this statement of four applications.</sup>

While Mr. Sibson could not under the circumstances extend full courtesies he had no objection to my visiting the island and would introduce me to Monsieur Aef. Malouin. His letter reads as follows:-

Quebec June 1 - 1908  
Dear Mr. Malouin.

This will introduce to you Mr.  
Charles Schuchert of Yale University.  
You remember Mr. Prudden spoke  
to us about the visit he desired to  
make to the Island and we ourselves  
talked the matter. I am sure you  
will facilitate him in any way  
you can.

Yours Very Truly  
Senge T. Siborne.

Hillidae Bros 101 St. Pierre are  
agents for the vessel going to Anticosti.  
They have two vessels. Tomorrow will  
arrive the Sarrey sailing early on  
Wednesday morning.

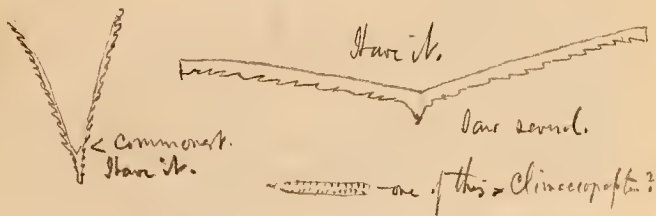
Fare one way \$25

Round trip \$47.50 but he gave  
it to me for \$40.00 This is the rate to strangers.  
not to so far less.

King Edward was the other vessel but they  
have given her up for the Sarrey. They start their  
coasting early in April.

Just in front of the Arsenal building <sup>in Upper Quebec</sup> they are digging a darkish dense limestone for road metal. In looking over this material saw a few graptolite very form reminding one of the Hornum Hill zone. There is here some limestone than shale.

In the afternoon walked about 3 miles of the St. Lawrence past Dolpo Cove. At the Citadel there is much <sup>seen in figs 2-3 just thick</sup> limestone with calcareous shale limestone. As one goes up the river the regular <sup>succession of</sup> limestone goes out, more and more calcareous shales come in and within 1000 feet of the brick toll gate house <sup>at Dolpo Cove</sup> found graptolites like this:



Beyond the toll house soon black very fissile shale comes <sup>in</sup>. This for a half mile. Gradually come in beds <sup>that</sup> weather red and finally in another half mile all in red shale that weathers down into thin plates mottled by talus slopes. The same <sup>red</sup> beds also across the river. No fossils otherwise.

For the first two miles one walks almost <sup>dry</sup> the strike and along the third mile the beds come to be more transverse to the road.

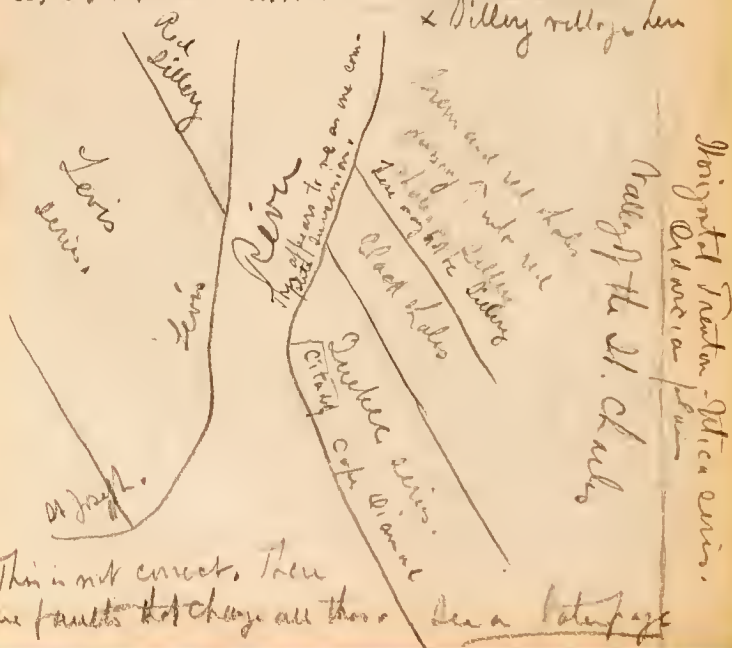
These same red shales one sees across the <sup>river</sup> of the stream from the Lewis beds and the <sup>limonite</sup> <sup>conglomerate</sup>.

The thickness in the first two miles, nevertheless that one walks mostly along the strike, is great. There may be 2000 feet or more as there seems to be no repetition.

The question now arises did I go up or down the section. According to Lewis dam into the Cambrian = Sillery red shale.

As I saw the Ordovician about Quebec.

x Sillery village here



This is not correct. There are faults that change all this.

See a later page

Quebec, June 2-1908 Tuesday,

Walked up the St. Lawrence on the Lévis side about 2 miles and then set down to make those notes and the sketch on other side.

All of the strata at Lévis are very different from those of Quebec. There are beds of crystalline whitish limestone, <sup>light colored</sup> and some green and considerable limestone of a milky white color in the weather. These pass into greenish shales as the red and green shales and then into red shales within 2 miles of the ferry.

It seems to me the section is complete across from Lévis to Québec. If this is so, must it not be a good guide?

Then walked down the river from Lévis Ferry to St. Joseph. Here one sees several conglomerates, one especially being well developed and probably ten feet or more thick. I can not believe that these are conglomerates in the ordinary sense rather intraformational conglomerates. In one place the beds underneath the conglomerate is an arenaceous limestone and the stratification somewhat cross bedded. Then follows the conglomerate with the pieces of all sizes and

Quartzite as seen from above Lewis. Form of stream to Lewis

C. to be hills.

Shale with  
dip and vertical  
in weathering.

Back to West side.  
in about one mile.

21 shales for  
initially 2 miles

down stream of St Lawrence.

dip.

This looks to me like one continuous series and yet  
none of the Lewis beds appear in this section.

Shale  
Fossiliferous  
chert

Shille.  
dip away north of a vertical

River.

none rounded. Usually the limestone pieces are flat and thin and most are of a white limestone in an arenaceous paste. There is also some shale, but the variety of material is not such as one expects in a conglomerate of this kind.

Dalcott's idea of fossils in the pebbles being different than those of the <sup>part</sup> I can not explain, <sup>nor do I see that they</sup> nor the fact that congl. 2 has Cambrian fossils mixed with Ordovician.

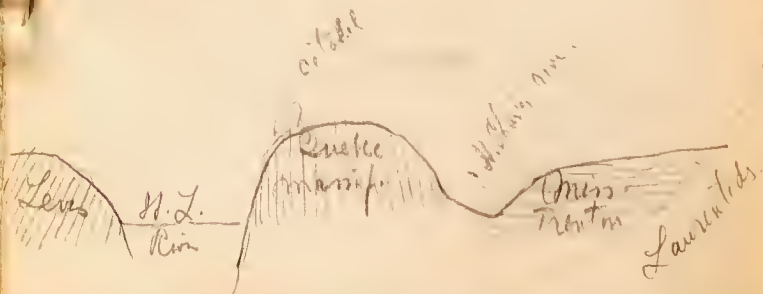
As one goes towards St. Joseph and about the first <sup>cut</sup> in the Intercolonial having road on the two sides one sees the shale gone black weathering water, about ten feet thick between a green shale band below and a conglomerate above with the Phylloporites, Tetraporphus fauna.

As one goes on further towards St. Joseph the strata give the impression of the rocks along Champlain strait in Quebec.

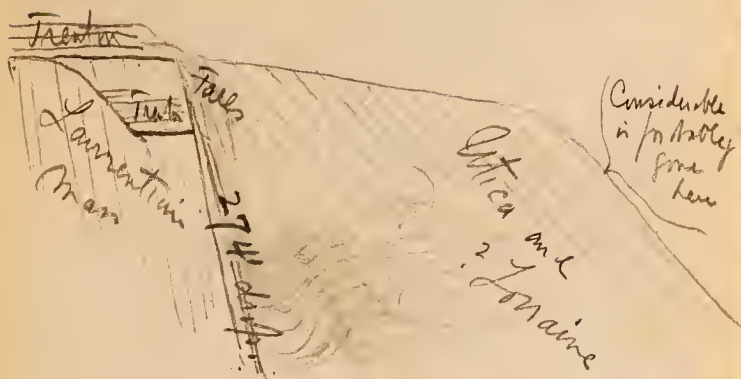
From St. Joseph one has a fine view of the Laurentides and the cut Ordovician plain with the falls of Montmorency dipping it is said 275 feet to the St.

Lawrence This plain lies in front, as a  
 low land, of the Laurentides and extends  
 back (north) of Quebec. As these strata of  
 the plain are horizontal one gets a good  
 idea of the over thrust Silley - Lewis -  
 Quebec series. I wonder if the dip of  
 the horizontal strata is towards the St.  
 Lawrence allowing more easily the Lewis  
 Channel material to slide and roll  
 over it. <sup>due to gravity</sup> If this is not so then the  
 Mississippian sea material was either  
 eroded out at Quebec or pushed and  
 rubbed away by the sheer zone. <sup>It is all underneath.</sup>

From Lewis Point one gets I think  
 the clue to the structure. Across the river  
 it is thus



Montmorency Falls, in the afternoon.



Out of loose pieces of the Utica collected a few graptolites, Climacograptus are possibly a second species. A very soft shale, <sup>with sandy beds</sup> dark but not at all as black as the Utica of New York. On some layers the surface shows plain current action like the Potsdam Leptæna slots and in most cases, especially the more sandy layers the graptolites are all laid one way - point in one direction only.

At the top of the Falls is a <sup>first class</sup> hotel Kent House. From here one gets a good view across the St Lawrence to the south side. There as on this side the section is thus

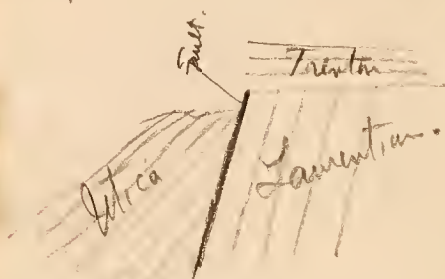
St. Lawrence south side off. Montgomery.

Upper St. Lawrence

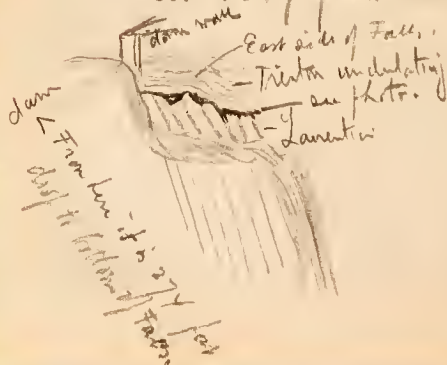
Mid. Range  
dissection

River Tidal Flats Farms

In a small gulch between the falls and the elevated river bed of same one sees near the top horizontal Trenton rocks thus

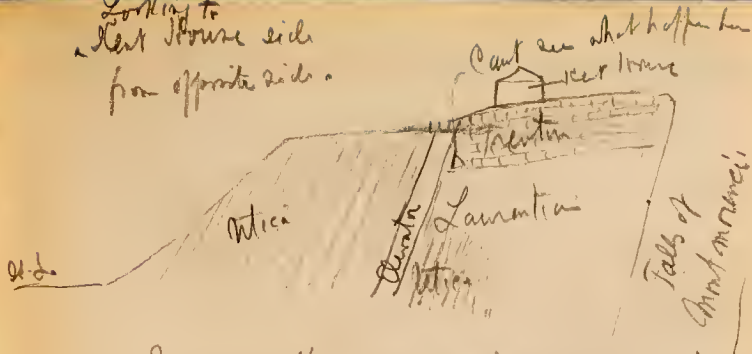


As the top of the Falls thus



Trenton in this bed 2-6" thick of a mostly white or no fossils really seen. This on west side, may be seen east side and at Laurentian contact.

Looking to  
West House side  
from opposite side.



Just at the Falls on the east side I  
climbed down and saw the contact between the  
Laurentian and Trenton. The old floor is very un-  
even, and in all the cracks the material of the in-  
truding <sup>bedded</sup> has filled them. Fossils occur in  
these filled cracks of the Laurentian. There  
are ? Cosciumma and a large Prasopora <sup>sp.</sup> ~~from Trenton~~

A few feet higher in the regular bedded limestone  
saw Trinodus concentricus, Ceraurus pleurex  
anthemus, Calymene callicephala, Volmanella  
testudinaria, Conularia.

At the contact there is no evidence of sand  
and the Laurentian is soon smooth. There should  
be sand somewhere, but it is not at this spot.

Then went up the stream to the upper  
dam. Here the limestone seems to be at the  
very top of the Trenton. It is black with black shale

partings. The fossils I saw were Trinac-  
leus concentricus, Ceraurus flexu-  
osus, a large peculiar Lingula  
rounded at both ends or oval, another  
smaller plumper form, and very large  
Schizocrania.

These Haell limestones make the  
upper plains-level and there is no Utica  
above, only glacial material blue clay  
on the Foulders.

There is probably at Mont morenci  
not more than 50 to 75 feet of Trenton. The  
Utica is very much thicker, several hundred  
feet. Probably nearer 600 feet. Logan  
gives 318 feet. The balance is Tonawanda.

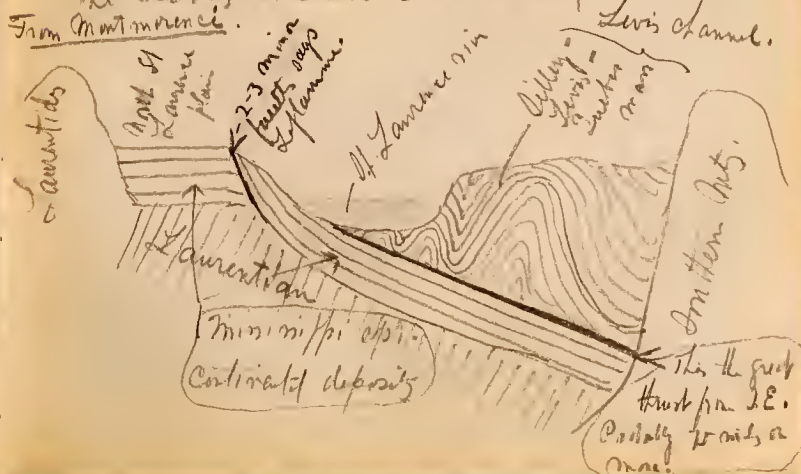
On the upper plains one has a good  
view of Quebec. The city is on a ridge that  
extends many miles inland and across to  
Leves more but soon dies down to the plain  
level. Through the ridge the St. Lawrence  
has cut. The Charles river is on one side

of this ridge, the St Lawrence on the other.

To the north is a chain of Mts the Laurentide probably 2000 feet or more high in places. Across the St. Lawrence many miles to the south is another high ridge, as high or higher than the Laurentides, <sup>said to be the White Mountains.</sup>

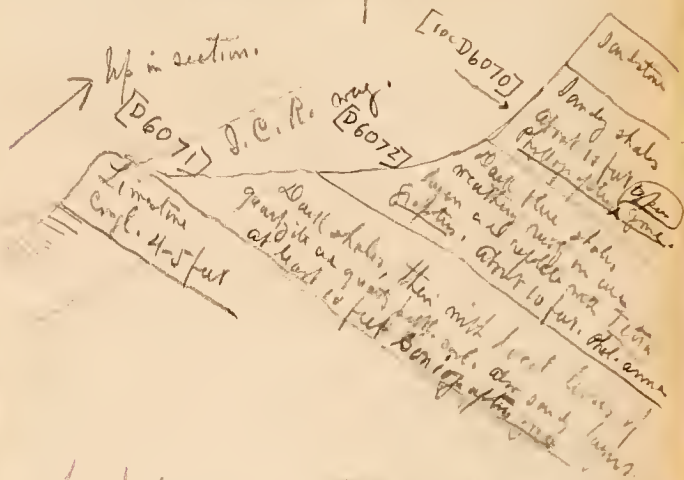
Did the Ordovician once extend over  
the top of these <sup>massive</sup> beds? If so the Trenton  
Stroica - Cincinnati <sup>series</sup> was faulted down  
and again faulted at the St. Lawrence -  
the great St. Lawrence fault of Logan  
over which has been pressed north-westward  
the Levee channel material. Thus

From Montmorency



Lewis June 3 - Wednesday,  
 (About half way between the Lewis Ferry & St. Joseph)  
 Collected most of the day at the graph-  
 itic locality at the first G. C. R. cutting  
 large well on both sides, east of Lewis Ferry

The section is as follows:



The shale continues above and for  
 several hundred feet and there is more shale  
 and less sandy material. Then thin dolomitic  
 bands are inserted, these become thicker and  
 then all goes over more and more to calcareous  
 shales. Apparently one of these <sup>are</sup> below  
 those seen along the place - St. in Jackson.

Quebec. June 4-1908 Thursday.

The Savoy arrived last night.

Called to see the steamer and found it a small grey steamer very heavily built.

The Captain is a Mr. Belanger. From him

[D6083-3 units combined] learned that Dr. Schmidt is now in Quebec. Then looked <sup>him</sup> up at E. Roumilhac 48 Rue du Palais or next door to the Victoria Hotel. Found him a stout man with a fine face, about 45 years of age. He then introduced me to the Lead Book Keeper for Monks who had left the island via Halifax and will go back by the Savoy. His name is Leon Lacroix "Chief Book Keeper".

Dr. Schmidt offered me any part or all of his collection at the Island. As a gift.

Then packed up and will leave two boxes of Leon's giftlets at the Victoria Hotel.

Dr. Schmidt asked to introduce me to Prof. or rather Monsignor Laflamme

of Laval University. He told me he had  
been on the Island <sup>Anticosti</sup> for two weeks. If I  
took a small sail boat, called by the  
men "bat" and manned by two men that  
such would be safe anywhere as there are  
so many small streams to put the boat  
in at night. He also called my atten-  
tion to the fact that the flies are bad,  
rather he spoke only of the mosquitoes.

The north side of the island he said  
was geologically uninteresting and it may be  
that I need not go farther than Macastry  
<sup>or Magarthy</sup> Mountain. The south side is the <sup>more</sup> interesting  
one and especially famous for fossils are  
the Salt Lakes <sup>east of the junction</sup>. I suppose I thought  
I should <sup>be</sup> the O. R. side as far east as  
O. R. Light House.

Was introduced to Geo M. May,  
Captain of the Customs vessel Co-  
stancia of Quebec. He knew Dr.  
Bakerham.

Also was introduced to Yves Le

Rouze's Instructor at English Bay  
He speaks a little English but Mr.  
Lacroix much more.

From these men I learn that  
[Chalermi said 161,000]  
Ménier paid \$200,000 for the island  
[Red Book says 125,000]  
and has it now 12 years. During this  
time he has spent annually \$200,000  
and hardly a penny has he received  
in return. At Ellis Bay he has had  
built a Chateau costing 800,000 francs.  
This a place to live for himself and  
to entertain his guests. So far he has  
been on the island each alternate year.

At present Ménier seems to be  
much disgusted with his investment  
and is letting go. The Savoy took  
away on her last trip to Quebec at  
least 70 people depleting the island po-  
pulation which was not over 350 per-  
sons at any time.

The Savoy sailed at 6.20 P.M.  
and I have good accommodation. I  
can expect a boat at Anticosti very  
ten days.

The tide at Quebec is 18 feet. Amounts to Three Rivers  
at Anticosti 6 feet.

On the way to Anticosti

Friday June 5.

No sea on and slept fairly well and  
arose not feeling particularly bad.

After breakfast Mr. Rouges showed me  
his Anticosti pictures and I was spec-  
tacularly surprised with the considerable civil-  
ization established on the west end of Anti-  
costi by Mr. Menier. His chateau is  
certainly a handsome frame home with  
many gables, a luxury in the wilderness.  
Here he has an automobile and a fine  
road runs some 12 miles from English  
Bay to Ellis Bay. This road cost more than

\$2000 per mile to build.

At Enfield Bay there are many houses far more than I had thought. A school, Governor's house, church, and residences of Officers. They have several houses and many cows here.

At different places along the south shore are a number of "camps" a small shanty with a stove, wooden benches and wood at hand for the stove. I suppose I can use these places. All in all it should be easy for me to go about in case I am not turned down by Malouin.

At one place <sup>40</sup> on the south shore of Rimouski <sup>on the full beach at Levee Island.</sup> to take on passengers. As one stop here an ocean liner passes us but before doing so drops her pilot at the point called Farther Point. There is considerable high land south of Rimouski, mountains several thousand feet high. On the opposite or north shore the land is flatter probably nothing over 1000 feet high.

What as I see there about  
Quebec.

alluv.

alluv.

Black shales passing into

Black shales and shales.

Black shales

St Lawrence river.

Red Lillars

Louis series.

Louis

Quebec mass.

St Lawrence  
river  
mouth.  
eastern shore.

St Joseph.

Quebec series.

Montreal section -  
Ordovician plain.  
Valley of St Charles river.

Still on the sea. June 6 Saturday

A sea began to kick of this morning at 4 and as the port hole to my room is broken it soon became impossible for me to keep dry. Almost sick I had to get out of the room and lay around elsewhere as best I could.

At about 10 o'clock we pass a whaling station. One whale is cut of and ready to go into the factory. On the ways lies a small specimen apparently a young taken whale. At the point beyond we stop at a wharf the terminus to a nine mile railroad to Clark City. At this place an American concern has invested 3 millions in a plant for pulp making. Our forty men got off here to run the mills just about ready to start.

The bay here is a large one hemmed in by seven islands that <sup>giving the name to the whaling station</sup> give the name to the village on the opposite shore, all of which I took a picture.

The land here looks so forsaken

The metamorphics are dark largely feldspar  
rocks and with <sup>the new growth has a coarse</sup> ~~the dark~~ conifer. The  
landscape is almost a black land. The  
hills run up 1000 feet and all is of an  
even rounded hills. Of houses one sees  
none except as on the village of Seven  
Islands. Here and there there is snow  
giving an idea of northern cold land.

The Jaroj is a fine roller and  
although there is no sea the slightest  
motion of the water moves or rather rolls  
the vessel. It rolls too much for me  
and so I went to bed at 3 P.M.  
and stayed there until morning.

Still on the Seelf. Sunday June 7.  
Some rain.

As the boat is not going much I get  
up in time this morning with the other  
passengers. There are more sand flats  
in front of the land this morning and  
then too the land is lower. As else-

where snow lies around.

At about eleven<sup>a.m.</sup> we are at Long Point in front of which are the Mingan Islands and here we are transferred to the Alpha a tug used at Anticosti together with the others for the factory at Fox Bay on the north-eastern end of the island. There is some sea on and after some manouvering the Alpha ties up to the lee side of the Idrooy and we are transferred.

Of the Mingan Islands I saw but little and only to one of the small islands did I get close enough to see the rocks. The sedimentary seemed like a very heavy bedded dolomite.

From Long Point to English Bay<sup>by way of Macarvey</sup> the distance is said to be 20 miles and we steamed across in  $2\frac{1}{2}$  hours. As we approach Anticosti we come nearest to Macarvey Mt the highest land of Anticosti. From here to English Bay it is a series of drops or troughs at the latter place the elevation does not seem

The more 100 to 150 feet.

English Bay is a small crescentic bay probably two miles across. From the sea it is pleasant to behold, one of the finest villages of this northern county I have seen. All the houses are painted yellow with red <sup>or shingled</sup> ~~tile~~ roofs. The Governor's House now occupied by Mrs. Malouin is a rather large summer house in which I am staying. It is a splendid home for these parts of the world. Around each house there is a lattice fence, the only villages <sup>hereabouts</sup> with such ornaments.

Mrs. Malouin is looking after me in royal style and is doing more than he should. He promises to furnish me 2 or 3 men and a boat to take me to the Salt Lakes. The 2 men and boat are to cost \$4<sup>00</sup> per day. He also drives me to take a third man for food and always to be with me and to stay with me at night in case the <sup>other</sup> ~~men~~ <sup>2 men</sup> have to go out in bad weather elsewhere with the boat. A tent, stove, blankets he will

furnish and advises me to buy a mattress  
Other things can be had at the store.

After 5 P.M. walked over to English Head  
to see the rocks. Saw almost no fossils well  
preserved and it is plain that I must have to  
hunt closely in the Ordovician for a good  
collection.

Mrs. Menier spent last year on the island \$180,000. This  
year but \$42,000. He paid in 1895 \$161,000 for the entire island.

English Bay Monday June 8.  
Rain all day.

Dark and raining but no wind.

After 8 o'clock put on my rubber coat  
and started for English Head about one  
mile north of English Bay or as it is  
called on Dr. Schmitt's map Bay St.  
Claire. Here the cliffs may be from  
75 to 100 feet high and made up of A4  
of Richardson's section. There are many  
fossils but almost none that are good  
enough to determine. By careful search  
I got a bag full mainly of Obolus

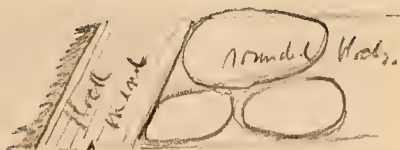
canadensis and Favosites gettlandica.  
Tucoides and finger sponges are also  
common. In the dolomitic bands holding  
Obolus by the millions occur most of  
the fossils. I must collect these Favosites  
more in detail. Too wet this morning  
to do good work.

It is beneath the Obolus beds probably  
20 feet that the Favosites collected this  
morning occur. With it also occur  
the Strophelasma.

In the afternoon it is still raining but  
started out for the same place as this morning.  
In the zone with Favosites and Strophelasma  
there is considerable intraformational conglomerate  
the flattened and round edged pieces being from  
small pebbles up to pieces 6 inches long and  
3 to 4 inches wide by  $\frac{1}{4}$  to 1 inch thick. With  
these occur the corals. One bed has  
suffered considerable lateral pressure and  
every ten to twenty feet the bed which is  
less than one foot thick is completely crum-

pled. Thus

cross bedded



These upended pieces I saw in several places. The entire series of beds were laid down in a shallow sea, as ripple marks are common, most common in the comminution of crinoids. Slight cross bedding, separating of brachiopod valves, limestones separated by green shales all point this way.

One Favosites gothlandica measured 2 feet across, by 18 inches in width and 14 inches high. It is a fine specimen but I will probably have to leave it.

One peculiarity of these beds is the almost complete absence of Trematostomata. So far I have not seen any of the regular forms and the large piece collected this afternoon is totally different from any of the Mississippi sea. Nor did I see any

parasitic forms. The gastropods are  
decidedly Ordovician but not necessarily  
Richmond while the brachiopods do not  
reminde of the Regular Richmond even  
though one or two are identical forms. Then  
the presence of Favosites and Stomatopora  
point rather to the Silurian.

There is rarely a large Ostracod to  
be seen reminding some of Lependilia.  
cæcijena.

So far my results are not brilliant  
but then it rained all day and I could  
not work to advantage.

Mrs Malouin is doing wonders in  
serving dishes. Today I have <sup>had</sup> Florentine pudding  
and for dinner brook trout and pigeons.  
It is a surprise to see the good things  
well served.

English Bay, Tuesday June 9.  
Some rain

As the wind is still from the east and threatening to rain we conclude not to sail for the Salt Lakes.

Started out for the day east to West End Lighthouse. Found very little of value along the shore <sup>for the first mile</sup> except a fine Favosites githlandicus, Rafinesquina americana, and Pterotheca. A half mile farther F. githlandicus, small and large corallites, Favosites stellata and Plasmopora.

In the cliffs beside the road about half way between English Bay and West End Light H. got Endoceras, Rafinesquina, Lithothamnium, Rhynchotrema copax, <sup>Beudanticeras 2 sp.</sup> Leperditia carosijana etc.  
This is probably Richardson B6.

East of the West End Light the road becomes steeper and is more finely broken and along the head I noticed that the corals are more common, and the Beudanticeras.

In the evening looked over Schmitt's collection of fossils and was surprised to see how little of value he had. I picked out about all that had value and do not think the lot will weigh 15 pounds.

Was shown Beuteria from the Magdalen Islands which if true is a pointer of value. Along with these were Favosites foetlandica and a slab with Ochetes laurentina that I fear are from Junction City region of Anticosti. I have taken some of this material but it needs all to be looked into before being accepted.

Also took a slab with the track described by Richardson and named by Billings Daenichnites abruptus.

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From Red Book 1st ed. Anticosti Island.  
2,500,000 acres, 140 miles long 30 miles broad.  
Meaner fossils 125,000.

English Bay. Wednesday June 10

As the wind is favorable but light we conclude to sail and all is ready by 9 A.M.

The boat is a good one about 30 feet long with  
<sup>and can take up barrels of flour = ten tons weight.</sup>  
two masts. It is the boat of Mr. Stanislas

Poirer and he is in charge of it. For fifteen years he has sailed it around the island carrying mail and provisions.

He says the island is 135 miles long. It is  $2\frac{1}{2}$  miles to West End Light from English Bay, then 50 miles to South West Light and 15 miles more to Salt Lake. He has with him on this trip his son Edmund, and also a young man to assist one in Mr. William Rogers. He is to stay with me on shore and help generally when the boat is obliged to leave on account of the weather. All is to cost one five dollars per day.

As we are just past the West End Light a fisherman catches a Halibut of about 100 pounds and then tells Mr. Poirer to say that he once got one that was 9' 3" long, 14" thick and weighed a little more than 500 pounds.

The wind is so light that it has taken me time to go to West End Light.

All the way from English Bay to Junction Cliff the top of the island <sup>appears</sup> as one plain. About one mile west of Junction Cliff the land is probably 50-75 feet higher and then it slopes away again to the former level towards Cape Henry. West of Junction Cliff is a large cove = Strawberry Cove.

The reef jutting out from Cape Henry extends three miles and it is curious and alarming to see the waves roll landward so far out to sea. Ten hours we see this Cape and do not seem to get nearer.

At 5 P.M. we land at the bay Ellis Bay wharf of Mr. Meunier. I start out at once for the White Cliffs and find it interesting collecting. The common fossils are Othis laurentina, Strophomenella, Rhipidomella. There are quite a number of other fossils.

The lower half of the cliff is a shale <sup>irregular with the layers</sup> horizon, the upper half <sup>is</sup> a hard, dense conchoidally fracturing light colored limestone. Out of the latter got a small slab with several crinoid heads. Was surprised to see here Beatrixia undulata and Protarea setuosa.

In the shale Othis laurentina is common, rarely a Strophomenella and along the beach Platystrophia and Anostrophia. Tomorrow will take one or two men with me and set them to picking these small things.

Slept at the end of the wharf at Mr. Harrier

Sandreau. He catches "lots" of lobsters often as many as 14 in the "tail end" of a <sup>single</sup> lot. He is going to let us have some at five cents a piece. Had lobster for supper, boiled, very fine.

## English Bay Thursday June 11.

As there is fog on from the north it was feared the wind would be no good and so Rogers, Edmund and I started out for the White Cliffs <sup>on the eastern side of Ellis Bay.</sup> I set the boys collecting on the reef in the shale zone <sup>A</sup> while I went on west a little farther higher in the shale zone. Here Platystrophia and Anastrophia are not only very common but also <sup>are</sup> good. Then collected in the higher land limestone and found a few desirable pieces. Then walked on to Eagle Pipe

where I sat down to have my lunch of crackers  
and cheese. By the time I got back to the  
White Cliff the tide would be low enough to  
walk again on the reefs. The section from  
the <sup>Mumins</sup> ~~road~~ to Cape Eagle is about as follows.

C 11 = 11 + 12

Probably C 10 = 5

Probably C 9 = 12'

Cape Pleureux.  
(mean water fully)

C 8 = 21

11 = 10

"C 6" = 20

"C 5" = 6'

White Cliff  
Limestone and shale

Shale  
Zone A

Modular shale with Platambonites  
very common. Large Stromatopora, Tentaculites  
Helicopora and small Beudanticeras un-  
dulate. Also Ascerones. The Beu-  
anticeras are almost vertically.

The fossiliferous slates covered with Platambonites.  
Have a few pieces. Some included in Stromatopora.

Hard light blue limestone almost  
white with Orthis causidensis common.

A few trilobites, Paserochus are very  
rare. Beudanticeras undulata. These are all  
and protolites.

Soft shale with many brachiopods. At  
bottom Orthis parvata, Platys marginalis  
throughout. Orthis causidensis near top. Platy-  
strophia and Anostrophia. Here also  
rare Platambonites. With Anostrophia  
still smaller but not common at bottom.

Hard blue limestone with but few  
fossils. A little quarry back of museum  
house. Did not take anything.

Mumins road.

All in all I have a good collection of the fossils on the east side of Ellis Bay.

The wind has been strong all day and we could easily have sailed to the Salt Lake.

Most of the fossils collected today are from the Lake zone C3. Most of these <sup>are</sup> brachiopods, one little cup coral, and 2 species of Plasmopora.

I am strongly impressed with the collecting today that there is nothing Silurian in the fossils seen, i.e. Silurian in the sense of our faunas in the United States. The Plectambonites <sup>looks more like</sup> transversalis, and the presence of Atrypa majinalis, Plasmopora, Hindella, rarely Stromatopora <sup>or</sup> commonly Strophomena do remind of the Silurian. On the other hand <sup>Protarea undulata</sup> Orthis plicata, Orthisina verneuilii, Orthis laurentina, Orthis maria, Protarea retusta, Leptaena rhomboidalis it is more Richmond like than Waldron point rather to the Silurian. If Clinton is to be regarded as the base of the Silurian then

Anticosti Division  $\frac{1}{2}$  (basal half) - must be regarded as Ordovician.

On the other hand I see nothing in any of the horizons so far studied to be directly correlated with the Richmond, i.e. a common fauna. Certainly Divisions A and B belong to a distinct sea province, of Atlantic type, but there may have been some intercommunication between this sea and the Interior by way of a northern passage connecting with Manitoba and thence with the Mississippi valley. A great deal of clarification should result of this summer's work in regard to my paleogeography of Middle and Upper Ordovician and early Silurian times.

Left again at Mr. Sandrean's house on the end of the week.

## Ellis Bay Friday June 12-

A fine morning and as the wind is in the proper direction we are off for the Salt Lake.

As we get out of the bay I see that I did not get to Bear Point yesterday but only to Cape Eagle. Bear Point is probably 2 or more miles east and Poirer says there is a cliff around the point to the east. The cliffs are about  $\frac{1}{2}$  mile long.

Long Point shows up well sticking out as a prominent cape.

We can also plainly see South Shore of the St. Lawrence Gulf. This is the high land to the N.-W. of Cape Poirer. It does not stick out prominently but still there is a long line irregular line off to the south.

A low coast all the way to Duck River. Here there is a camp and low cliffs not over 10-15 feet high. It is now 8 miles to Beech River a fine place for trout.

We see Small West Point very well from west of Duck River.

At 10.15 we see the low falls of Little River.

Camps are established at all the rivers.

At 12 noon we pass Reesie River. A very low coastall along here and apparently all the way to St Marys Cliffs. These we sees for many miles in fact I saw them for the last  $2\frac{1}{2}$  hours.

At  $12\frac{1}{2}$  o'clock we are opposite the long St Marys Cliffs to the S-E of the river. <sup>It is all sand.</sup> The same name. ~~There should be good collecting here.~~ To the N. of the river there is also a small cliff. The color of these cliffs from the sea is whitish.

There is another low cliff about  $1\frac{1}{2}$  miles east of St. Marys Cliffs and a much longer low one about  $1\frac{1}{2}$  miles still further east. <sup>On P. tan and lii zone.</sup>

High cliffs of ash come in at St. Annas Cove, which is probably 4-5 miles S E of the last mentioned low long cliff. These cliffs are very long more than one mile and are probably good for the fossils of Division D. All sand.

Altur River has a long cliff, and lower exposures occur for a mile or more east.

The next cliffs are on each side of Green River (River an Fossil). From here there

are low but long cliffs all the way to Jupiter River.

From Sun River to S. E. Light it is 15 miles.

Inland far to the N. E. of Jupiter river cliffs there is high land. The flat topped are probably 400 feet high.

Jupiter river cliff is a fine one, 1 mile or more long. To the east of the river are other lower cliffs extending several miles east to the light house.

As we approach Smith West Point Light House the wind changes to the south and we have to tack to the point for seven miles. With the change the temperature grows colder and eddying I approach the light house small cove.

All along the coast from Jupiter River the rock is exposed in low cliffs from a few feet to 15 or more feet in height. The dip is as elsewhere to the south.

The Pope's for three generations have

run this light but it now is taken care of  
by Mr. Jephrium Le Mieux who used  
to be a sea cop. <sup>(a mate)</sup> to South American  
boats. I saw him light the 15 lamps and  
get things started for the night.

He tells me the flies are so bad here  
that life is almost unbearable. When he  
first came and after they were bitten by  
them their heads always swelled. But  
now that they are used to them the men  
no longer swell but the ladies still  
undergo the trouble. He says the flies  
will not come yet for two weeks and  
possibly three weeks.

# South West Light House June 13-

A fine warm day.

Started out north and west along the coast from the Light House.

At the Light there is a great thickness of a crinoidal, granular limestone with an immense profusion of great crinoid stems and roots. Heads there are none, all are broken and the limestone shows evidence of con-  
bedding. These must be Richardson's zone F.

Then for more than half mile, the beds are concealed by an elevated head of pebbles, <sup>or a massive gray limestone layer</sup> Richardson's <sup>concealed</sup> bed E 10. about 1/4 mile

Then east of the first brook, we collected a number of thin slabs abounding in *Atrypa reticularis*, *Plectambonites* as long as broad, *Amphithea* <sup>terniplicata</sup> and great number of *Bygonia*.

This is Richardson's E. 9 near the top. Just west of the brook may be seen little <sup>low</sup> exposures of the same horizon holding *Plectambonites elongatus* (none in brook) and *Orthis flabellum* but very few specimens. The former are larger than the Clinton form. Had three fair specimens but

Rogers forgot to bring them.

From this block to the next one west it may be  $\frac{1}{2}$  to  $\frac{3}{4}$  mile and nothing can be seen. We have passed now over all the beds of E 9-E 8 but I saw but few Stricklandinia virata unless I mistake it for the Pentamerus Mongus which is common here.

Between the third and fourth block <sup>west</sup> from the fifth we came upon the Stricklandinia beds <sup>thin and not far west of Cape Otway</sup> Richardsons E 6 and E 7. These beds are made up of these Pentamerids in most cases all are marked and broken and piled together like or many disks. Irregularly one finds pockets of them in their habit of growth, beds down with the anterior ends of valves up. It is for this reason that so few of the large ones are perfect. Only when one lies flat on the bedding is it apt to be entire, but because the shells are so thin all are more or less distorted. With the Stricklandinia occur Ostracodes and rarely a Stomatopora, <sup>up to</sup> one foot in diameter and rarer of all is Holysites (saw but one specimen up side down.)

To me all of these upper measures of E  
are equivalent to the eastern Clinton. This is  
seen in the Bryozoa, Ostracoda, Stictolan-  
dinia, Pentamerus Alcyon, Leptocoelia  
hemispherica and the Brachyprions. It is  
however not the highest Clinton as seen at  
Niagara Falls and Rochester. The faunas  
of the two regions are however a common  
one and had one source, and are quite  
distinct from the Ohio so-called Clinton.

How hard as one will get faunas  
can not be gathered. The fossils are hard  
to get because of so much limestone and  
then the fossil zones are limited to a  
few feet and then great thickness of lime-  
stone almost barren or a scattered few  
fossils of those already seen. Then too  
when fossils are common they are very oft-  
ten the same species. In the upper part  
for instance Atrypa reticularis and  
Cuterebygon are the common species.  
In the Stictlandinia's beds there is al-

most nothing else.

However this limited Clinton fauna is  
in Lansing with the same sparse fauna as  
the eastern Clinton.

Packed and labeled all the fossils  
so far collected and put away in bags.

Slept again at the <sup>E</sup>ight House on  
the fifth floor.

Smith West Light House Dome rain

June 14. Sunday

three miles east of the Light  
Started out for the Juncos, where the  
contact between the granular crinoid limestone,  
Richardson F, and the thin  
bedded blue limestone and <sup>green</sup> shale, Division  
E, may be seen. Many fossils are to be  
had but all are in slabs.

The lower part of F. is regularly bedded  
light colored limestone with green shale  
parting. Here Favosites favosus in the  
slabs rarely more than  $\frac{1}{2}$  inch thick and  
up to 2 feet in diameter is the common  
fossil. With this also occurs Polydora, Alcedo, Stomatopora, very rare Halysites.  
Gradually the corals are displaced by the  
crinoids and then the limestone is all of  
crinoids until near the top where a few  
other fossils may be picked up. The corals pre-  
pare the ground for the crinoids plus a dense water sea.

Very near the F. nigraensis<sup>zone</sup>, also occur  
a large Outhroces and a Phragmocrus

At the base of F. occur Thicklandina  
and then come in Leptærcdia tenuisphaera.  
Probably less than 10 feet lower occur Penta-  
merus Magnus, all in separate valves.

Here again at the very top of E all of  
the fossils that I know suggest only Clinton.  
It is true that it is a far more prolific  
Clinton fauna and the individuals more  
abundant, still the fauna is Clinton. I  
see none of the Rochester guide species.  
Spinifer radiatus is very rare at Anticosti and  
where are the other species bearing brachiopods.

The collection made to day from the top  
beds of E 10 and <sup>basal beds of</sup> F 1 is not as large <sup>in species</sup> as I had  
expected to make. As there are almost no  
free fossils anything has to be taken on a  
slab. This is one of the surprises of Anti-  
costi that there is so much limestone and  
so little shale.

According to Richardson's account  
all the corals collected today and a great  
many other things like Stichlandinia and  
Pentamerus also belong to zone F1. All  
the Leptocorda Lemniferica slabs are  
accordingly from E10.

To me this is a matter of opinion but  
in the main Richardson is probably correct as  
the corals, Stichlandinia come from the  
thicker beds at the base of F1. E10 are  
thinner beds and somewhat darker green. It  
is here that Stichlandinia and Pentamerus occur.

At the jumpers saw a small bear  
feeding along the beach. My first  
Anticosti bear. Tracks of bear, deer  
and Fox are common all along the beach  
1 1/2 miles east of the Light House, and in the  
Potage just east.  
The day is a dark, foggy one, with  
just a tendency to rain. To night <sup>the wind</sup> is strong  
from the south.  
Slept again at the Light House.

Bear I

Division F about the Light House  
and east to the Jumpers lies in an un-  
dulating, domed manner. It is only as  
one approaches the Jumpers that the zone  
F rises bringing to the surface the  
top beds of zone E. The undulations are  
sometimes quite sharp but never of long  
duration. In general the undulations do  
not exceed 10 feet depth.

Saw several Eucalyptocrinus but all  
are too poor to take away. Got an entire  
Acastes (Phacops) and a Calymene.

Brachiopods are the prevailing fossils. On  
all the layers L. hemisphaerica occurs. The next  
common fossil is the Lepidodictya. Bryozoa  
are rare and almost no Trematostoma.  
Another peculiarity is <sup>the</sup> scarcity of corals and  
cephalopods.

Could this Clinton have come into the N. I.  
by way of the Great Lakes from the north?  
At the Jumpers there is a red layer like the one  
at Ludlow. Actually in the Trenton.

Jupiter River, Monday June 15  
June rain.

Strong wind and a heavy fog on and I am held up for the present.

Left the Light and Mr. Lemieux at 10.45 and at 11.30 I was ashore on the east side of Jupiter river valley collecting a few graptolites and Pelecypods in zone E 3.

While I was collecting Poirer walked to the river mouth to see how to get in and by 12.30 we lifted anchor and are away for the river.

In the afternoon collected at the high Jupiter River cliffs just west of the river. The cliffs are more 100 feet high, the upper 70-80 feet being of the water lime like limestone-shale holding a very sparse fauna and Ornithograp-tus. The lower part of cliff is a soft shale without noticeable fossils, zone E 2, the upper being zone E 3.

Took 3 pictures of the cliff in a clear day.  
Bull 1/16.

In zone E3 at the Jupiter Rock Cliffs the fossil most often seen is the Ornithoptus large form. All the other fossils are rare, Atrypa reticularis, Leptocordia hemispherica, Acaster, Bemastus, Homalotus, Oncoceras, Nucleospira, Anastrophia, ? Pentamerus.

The formation is much jointed in the cliff, the cliff is vertical above the shale zone E2 and great masses of the upper stuff drops down the ground up by the sea making flat pebbles. The lower zone E2 is a very soft greenish shale and weathers down into a clay. I saw no fossils but this probably because my large pieces drop away from the cliff. This is the most marked variation of the deep on Anticline. Why does it mean? from cliff to cliff a distance of 100 yds.

The Jupiter has a wide mouth but is nearly closed by a beach of pebbles thrown up by the active sea outside of which the sea has here full sweep from the south both east and west. The actual mouth is not over 200 feet wide.

There probably was not much life in zone E3 but it seems to me that some of it has been

destroyed by the diagenetic changes.

Put up for the night in the Meunier Camp. A little board house in which a huntsman stays alone all winter. Mr. Poirer puts up in a similar shanty on Beech River. For the night William Rogers is my companion. Got to bed at 9 P.M. To be up early tomorrow.

The next day I saw that all of the fossils <sup>of zone E3</sup> except the graptolites also occur, and better, in zone E4 and E5. It is curious how often we see crinoid columns, nearly always a few species, and get not a head. Occasionally we see an arm with pinnules. On certain layers we see the separated stems inside and plate. Wonder if the stems remain standing for a time longer than the lead which soon separates <sup>the plates</sup> and <sub>fall</sub> apart. This would account for the abundant preservation of stems and so rare a head.

Jupiter River, Tuesday June 16.  
~~Some rain. Heavy rain at night.~~

Got up at 5 A.M. after a bad night's rest on a very hard bed. Then too it rained a little during the night and considerably between 5-6 A.M. The wind is again rising from the south so we are bound to this place for the entire day.

At 6 A.M. I start out along the shore with Rogers to connect my section of June 13.

The first cliff making the eastern side of the Jupiter delta is the same zone as that at the top of the Jupiter Cliff = zone E 3. Did not stop to collect here.

In about one mile the softer nature of E 3 gives way to harder beds = E. 4. The fossils are very scarce here, the commonest one being Oncoceras. Going still farther east one comes to two brooks one (the most eastern one) a pretty rippling water fall. Between

these beds occurs E 5 and extending at least  $1\frac{1}{2}$  miles farther <sup>west</sup> before we came to where we had collected so many Stictlandinia in zone E 7 and the base of E 6.

E 5 is a hard conchoidally fracturing limestone, of light gray color with almost no shale parting. The commonest fossil is again the Onoceras, in fact zones E 3 to E 5 should be called the Onoceras beds.

The next most abundant fossils is a Schuchertella on surfaces with Tentaculites and Ostracoda. Also secured three entire Acrostis ovestis and Rogus picked up a very large and fine Calymene nasuta. Here we also rarely meet with a Favosites.

Richardson constantly mentions fossils that I do not find in the horizon, some of which I am certain are loose and from the moranic material covering this part of Anticosti. I saw no Stictlandinia in any of the beds of zone 3 - zone 5.

For the actual distribution of the joints depend on my collection as we carefully collect only material from the rocks in place. Occasionally Rogus puts in a Pentamerus Almyus from the moraine above.

Had fine <sup>sea</sup> trout for dinner, several of the fishes caught being 18 inches long. These are caught with trout bait in sea water at the time when the tide is about 1-2 hours flowing in. Hardly is the line in the water and there is a fish on it.

Poirer told me that last winter Dr. Schmitt in a lake on Beccia river got out of a hole cut in the ice 300 trout in one day.

Poirer has now cooked trout two ways and in neither way is there a very particularly fine flavor. I know several fishes that I like better than trout. The three men are catching trout this afternoon while I am about taking pictures.

As we are bound to this place on account of adverse winds all went fishing for trout at the sea end of the Jupiter River. They got 70 individuals, but few are large, and they must have lost at least 30 more.

I walked up the river a mile and half and took a number of pictures. I fear they will not be good because of the dark misty day. At four it began to rain hard and will continue throughout the night.

A very bad night in the wilderness.

Jupiter River, Wednesday June 17.

Some gain.

In a heavy rain for these facts from the south we went to bed in the little camp house. It rattled hard against the roof and in several places ran down into the room but the beds were dry. We made a little fire in the big wood stove and at 8.30 turned in.

About midnight the wind turned and at 2 A.M. the thundering of the northwester waves waked me up. I started with some fear and looking out of the window into the dark almost thought the breakers would reach the shore. Looking closer I saw they were still some distance away but the grinding roar was terrifying. This was at the height of the tide and with the ebb the noise became some fainter. I wondered what the boat and Porter was doing

and at breakfast learned that his anchor  
and the shore rope were drifting at 2 A.M.  
so he had to get up and sail the boat  
back to the anchorage. He was blown  
up the river several hundred feet. At  
7 A.M. the sight of the waves was a  
wonder to behold! Some were ten feet  
high curling and grinding up the beach.  
All of the river mouth <sup>to the river</sup> had been  
changed during the night and the bars  
looked very different. The storm lasted  
all day. Having a gale with sun-streaks  
and occasional rain.

As there could be no thought of sailing  
today Rogers and I concluded to explore  
the shore west of Jupiter River. The elder  
Poirer took us across the river in the  
tender and landed us on the farther  
shore without getting wet. As we walked

It soon became apparent that all of the  
 debris of the Jupiter cliffs had been washed  
 away exposing in many places zone E2  
 at the base of the cliffs. Up the beach  
 curled and ran the great waves while the  
 grinding under tone and the roar made  
 it impossible to speak. In the teeth of the  
 wind we proceeded westward and hardly  
 gone a mile out of the bush came a  
 magnificent female bear with one cub  
 about the fat lay. She too was headed  
 westward and did not see us, walling  
 along the beach in search of food. The  
 wind probably deterred her for soon she  
 again turned into the bush. Fearing we  
 might have trouble with her we proceeded  
 slowly and again saw her in the first  
 trees along the beach while the little fellow  
 was climbing around in the conifer tree.  
 Finally she passed deeper into the bush

and we got by, hunts men without guns  
and provided us with hammers and collect-  
ing bags.

We saw no exposures until we got about  
2 miles west of Jupiter River where a block  
of some size came falling over the reef.  
Here is a small exposure of light green  
or grey limestone in thin beds, 1-3 inches.  
These are followed for another half mile  
when all is covered again by the down  
slipping of the glacial blue clay. In this  
clay occur a number of pebbly beds or  
nests looking that one can readily mistake  
them for recent shells when it is not for the  
fact that the species are all different from  
those of the present beach.

(or possibly D7)  
Zone D 9 has not many fossils  
but those collected are good and very inter-  
esting. The fossil I got was a fine and  
large shell that I mistook for Strophomena  
reclutator. As I collected more it soon

became apparent that not only were the shells  
different but also there were no radial striae.  
Later I made it out as Triflesia ornata.  
Heavens what a lesson! This seems like Richard-  
<sup>son's</sup> Triflesia constricta.  
Associated species are Atrypa reticularis,  
A. marginolis, Leptocoelia hemispherica,  
Bellerophon hilda long drawn out variety,  
Schuchertella striata, Leptaena rhombi-  
dalis, Acaster, Cheirurus, Bumastus  
Plectambonites new (has decided ridges), Helipora  
Ostracoda. Favosites guthlandica occurs  
rarely, one large mass about 16 inches across  
we took and saw another probably 20 inch  
aside. Pentamerus Mongus also occurs  
and in certain <sup>layers</sup> in separated valves abund-  
antly. Saw no Strophomena.

As the gale continues we were obliged  
to stop collecting. To be able to get back to  
the boat before the high tide cut us off.  
Otherwise we could not get in until after  
ten o'clock. Then too we could see

no cliffs ahead. Poiser tells me there  
is a high cliff 5 miles west of Jupiter  
River.

All in all zone D is Silurian but  
the part seen today is Ohio Clinton while  
the eastern Clinton is of zone E.

About one mile east of the brook marked  
to a tree is a sign board with the word  
duply into it.

Ten Miles East to  
Store of Provisions.

A further due east of the sign is  
a little shanty that may be intended as a  
camp or as a shelter for the ship wrecked.

(From the low angled dip of Division D it is probable that  
we are still in D 9 but somewhat lower. In any case the  
Triplex & otone beds are above are the Atypa & conforta beds  
below.) Dec June 21

Jupiter River June 18. Thursday.

Imre rain.

A fine bright morning to be ashore but there is no wind and we want to be at sea to go either east or west! Then too the breakers are rather strong in part of the river mouth, the wind up the river instead of out, and so on, the old old story of a sailing craft. A gasoline engine would be a very decided advantage to a sail boat when you want to go. But these people are too poor and too primitive for these things.

By ten o'clock it is dark with slight rain. It rained then to 12 o'clock.

At 1 P.M. Rogers and I go west and at about  $3\frac{1}{2}$  miles west of Jupiter River find thin bedded blue limestones with shales abounding in Helospira, Pholodiactya, Izozospira, Atrypa, Rafinesquina and a dwarf Spirifer radiatus like here (this is probably the Atrypa constricta of Richardson). <sup>? This is the D? - D9</sup> on a way this fauna appears

to me to be the time equivalent of the Edge-  
wood, Missouri fauna. The horizon of  
this fauna appear to me more like than  
of the Medina found at Hamilton than  
any others. Pascellus occurs probably less than  
is found in the above mentioned fauna.  
If my surmises of yesterday and today  
are correct I have made a good discovery.

We intended to go to a large exposure  
about five miles east of the Jupiter River  
and where within a mile of it when we  
were blocked by a considerable stream.  
To cross it meant wading and this I  
did not care to do. On the other hand  
I am glad we did not go because I  
was tired out to the point of exhaustion  
when I reached the camp. It is not the  
distance that tires so but to wade in  
a fetid track and with 30 or more pounds  
to carry is what does it.

Bea. IX.

Half a mile beyond the river that  
blocked our passage we saw our first  
bear.

Along the beach I saw the interesting phenomenon of thousands of caplons being driven ashore in the surf. They made a great struggle but it is a hopeless one for eventually their strength gives out. The beach in places is fairly alive with wriggling and jumping caplons. For 2 miles there were dead caplons along the line of high tide.

The gale storm also brought up a great mass of kelp and around the stems were fastened clumps of thousands of fish eggs. Some were yellow, orange, pink but some of somewhat different sizes. On the kelp were also picked up some large *Notus* still alive.

There must be a feast along the beach tonight for the bears. All along the shore where the caplons were coming ashore we saw many seals among the bearers after the fish. Also gulls <sup>and jaegers</sup> congregated but picked

only the live ones in the water. Along the beach they did not touch the explosion, all-  
 though here and there one sees one bitten  
 into an end gone.

W.

The purpose is over from the sea. The strike of E10  
 was from 10th, but not shown

E1

E.10

no land

E1

E.10

East.

There is more ground in previous  
 here that we did not see to  
 collect.

Jupiter River June 19 Friday

Slight rain early and late today.

As I went to bed very tired had a rest less night.

At 4 A.M. Poirer called us at the camp and said the tide and winds were favorable to get out of the river into the sea. By 4.30 they had moved out of the Jupiter mouth where we had been for four days, about  $2\frac{1}{2}$  days longer than I wanted to stay.

At 7.30 we are in front of South West Light and they salute us with the flag. At 8 Poirer and William go ashore in the next canoe to get our bag of Jeffersons fossils and by 8.15 we are away again for the Salt Lake.

We arrive at the lagoon of the Salt Lake at 11 A.M. and find the coast a very low

one and not a single rock exposure anywhere  
in sight. Then too no one hereabouts knows  
of the fossils. Small cliffs are reported to  
the east and west about four miles. Where  
Verrill got his fossils I do not yet know.

At Salt Lake lives Jos. Bourget  
the man that looks after the telegraph  
line along the island. He is a tall and  
very strong <sup>of busy action</sup> man and is equal to all  
that Centricosti demands. Single handed  
he will go along the line and during the  
summer his worst enemy is the mosquitoes  
especially when he is off on the poles. He  
also says that they are so common in the  
summer that while starting ducks he often  
can not see to aim. This place must  
be here during the summer and yet this  
family seems to be happy with one son and  
three daughters. However they are on the island  
but for years.

We had a chicken dinner at Mr. Bourget.  
For supper capalon.

After dinner walked first west for more than a mile and saw no prospects in this direction. Then started east <sup>F.</sup> fully five miles where we saw the crinoidal limestone here with a pinkish color, more dense and would make a fine marble. As the strata dipped to the east only higher strata could come in and at the next point we could also discern the limestones of F.

The region of the Salt Lakes is a very low land <sup>semicircular</sup> in front of a high ridge to the north. <sup>most higher than the E. part of the</sup> This low land is in fact below sea level, the sea flooding it therefore the name of Salt Lakes. There are two <sup>large</sup> great and small <sup>Salt Lakes</sup>. Over the top of this surface lies a glacial blue clay with pieces of limestone and crystalline <sup>and in the higher blue clay fragments of gray crystalline rock</sup>. In the clay occur marine shells here as elsewhere. In front of the lakes the sea has thrown up a finger bar sloping inward now covered with low arctic bushes. Beneath it is a dark turf <sup>or peat</sup> up to four feet

thick. In many places this turf is practically  
a tundra. Mr. Bourget says he often  
encounters frozen ground in digging holes  
for telegraph posts. These lakes are good  
breeding grounds for ducks and are covered  
up several brooding mother. Of one flock  
of ten or more were secured & and presented  
them to the Bourget children.

In our walk today we again encountered  
Caplin dead on the shore but not so many  
as yesterday. All along this shore as well  
as at the Jupiter River every now and then  
up to a seal head. They are quite  
common all along the coast.

This morning Daddy had we got past the  
Jupiter River camp when I saw a big bear  
crawling down the upper shanty hills. A  
second bear was seen near the junction.  
Here about the Salt Lakes bears are so  
common that the Bourget's are always

on the look out for them. The children do not stray far from the house and when the boy goes toward the corral he is apt to see a bear. They are now far more common than they used to be due to Meunier's rule that no one must do any hunting. This rule was given up this month.

The population of the island of Anticosti in 1898 was 203. It is now less. Here at Salt Lake before Meunier got the island there was a small lobster factory settlement. All are now gone except the remnants of many lobster pots. The only man living between Salt Lake and South West Light is Brumpt.

My trip to the Salt Lake has been a fools errand. At least one day lost.

Salt Lates, Saturday June 20

Heavy rain in the afternoon and night.

Had a good night's rest at the house of Mr. Brouzet.

Arose at 5 A.M., had eggs for breakfast and as the wind is from the east we sailed under favorable conditions for Sum River (Riv. du Fusil). Mr. Brouzet goes with us to look after "the line".

At 9.30 we are again at South West Light and the "mail" goes ashore. At 10 we sail for the Sum River in a good breeze. At 10.45 we are opposite the Inupiat River Camp. Just as we go out of South West Light Harbor in comes the cable ship Ontario to look after the cable that runs from here to Espey. It is now out of repairs.

noon at Cape  
The boat puts ashore at Mr. Kilbreay's cliff and we find it very poor collecting. It is about 4 miles east of the Sum River and about  $5\frac{1}{2}$  miles west of the Inupiat River. We are now again in the same type of rock seen about

English Bay, thin bedded grey, concretionally  
fracturing limestones with almost no shale  
partings. The fossils are almost none, the  
commonest being Hedysira (bygonia)  
<sup>and Rafinesquina</sup> Paraceras, these then are the Paraceras  
<sup>(p. 184 = 29).</sup>  
beds we saw June 18 underlying B 7.  
At this cliff there is a very slight arch  
and everywhere the dip is exceedingly  
slight. For this reason one has to go  
miles before getting into lower horizon.  
There are a number of conglomerate layers  
of no particular significance but there is  
one beneath the Paraceras horizon. Towards  
the west of this cliff that is about 3 feet  
thick and of the same character as that  
described for June 9. These beds must have  
been made when this layer was the sea  
bottom and a violent storm churned up  
and disturbed the bottom. In the rolled balls  
are the regular fossils belonging to the horizon.  
Just above this dolomitic conglomerate layer

then are more greenish limestones in which  
Favosites (have some) and rarely a Stromatopora  
occurs.

I can not quite make out from Richardson  
account if this horizon is D 5 or the zone  
D 6 which Le Static is concealed. In June 21  
Probably nothing known from D 7.

It rained or hard shortly after we got  
ashore that it took the spirit out of me. Then  
too it is so cold that I am uncomfortable  
beside. Here first symptoms of the intermittent fever.

In the rain we arrive at the camp at  
Riviere aux Fusils and try to dry out.

At 7 P.M. the two "live men arrive" with  
a horse and 2 large dogs. Here we are all to  
sleep tonight is a problem. The shanty will  
hold all of us but as we have to share the  
down and there is no other ventilation I fear  
that I will be all the worse for it in the  
morning.

If now looks as if D. 5 and D6 are more  
Ordovician than Clinton. To morrow we may  
learn more about this. For we have 4 to 5 miles  
west to Otter River to see the "Otter River  
section"

Late June 22  
As none of the beds seen are lower than  
D7 having more Silurian fossils than Rich-  
mond conclude that Billings is correct in  
placing all these beds into Silurian.

Sum River, June 21 Sunday.

Hard rain in the morning

Well we have lived through the night in the camp. Had the best and softest bed in the regular bunk while at my job cross wire lay one of the line men. On the floor lay the other line man and Mr. Bought. The dogs and horse were outside the camp. We retired at nine and soon a hard rain set in and as the roof leaked some soon everyone was being dropped on. However the boards soon swelled and there was no more trouble for the source. As I was the only man with a blanket the store had to be kept going and soon again the room was like an oven. The door was then opened and the men on the floor got cold and the door had to be closed. Mr. Bought while away the hours smoked his pipe all the night and between it all I got up

with an awful big head.

The rain kept up all night and it rains this morning with the promise that it will do so all the morning.

As the tide is high at 7 A.M. the line men can not get around the ropes until low tide. So they remain in camp smoking pipes until 9.30 A.M. I remain in camp too for the same reason and the further one that I would like to have the rain stop. The rain and fog will however will probably hold on all day.

At 10.30 we started west in the fog and rain for Otter River. Poirer rowed us around Green River and immediately to the west of this river there are low cliffs, more or less undercut, for the next three miles. In character and fauna these beds are practically the same as those east of the Green River. Only that to the west Pacetus is a very rare

fossils while corals as Favosites godlandica  
Helidites <sup>stomatopora</sup> and a Strophilasma are the  
common fossils. These corals are again  
associated with the peculiar "conglomerate"  
layers. In all cases when the conglomerate  
is decided the beds are also cross bedded  
or wavy and in most cases the corals are  
rolled and <sup>the Favosites</sup> often overturned. The Strophil-  
asma are often common in a conglomerate  
layer that is not decidedly disturbed. Sometimes  
they are large as they are again very small. Ends often rounded.

Above the coral horizon for 10-15 feet  
in a zone probably 20 feet thick, <sup>in which</sup> occur an  
abundance of Helmanella testudinaria (like),  
Strophomena maria, Rafinesquina alternata?

Leperditia and several Strophomena. Corals  
also occur in this zone but in isolated  
specimens. Both horizons are in Richardson's D4.

These two horizons are about  $2\frac{1}{2}$  to 3  
miles west of Sun River. Between Sun River  
and Otter River the strata dip but very

little or that the lower part of D must be  
away, far, to the west of our present position.

Again there is nothing Silurian in these  
beds, not as much as the White Cliff at Ellis  
Bay.

We got back to camp at 5 P.M. with the  
sun out in all its glory. The world is again  
bright, and we have the camp to ourselves.

After supper took a number of snap  
shots about camp and collected a few pieces  
of limestone, <sup>just to the east of our camp</sup> with Helopora and Gygispira  
and Dalmanella. The cliff I photographed  
and it is about  $\frac{1}{2}$  mile east of Sen  
River. The horizon must be in D 5. I  
also got Richardson's Atrypa congesta and  
large Leperditia.

According to Richardson all that we have  
seen of D of the Otter River are the zones D 10 to  
D 7 both inclusive = 166 feet. According to this most  
of my labels are registered too low in the section.  
Correct this.

Sun River, Monday June 22.

Had a fine night's rest in the camp with Rogers as my companion. As there was no call from Poirer I remained asleep until 6 and <sup>then</sup> had a shave. At seven had breakfast <sup>and</sup> learned that it would not be possible to sail now for the west as the wind is from the northwest, the direction in which we want to go.

At nine A.M. the wind is high and there is no prospect of our getting out today.

Later I reexamined the cliff about half way between Sun River and Cape Mac Selourey which is about 2 miles east of the River.

Found one good Alaenus head, some Rapinosa and a few corals. Also saw here the Citrypa congesta but too poor to take, and three Cithus flatellus one of which I have. With the finding of these fossils and the Citrypa congesta with a Schuchertella in the cliff near Sun

& the collection marked as D.R.

22.  
River it becomes plain that all these  
beds of D (up to at least the Otter River) are  
Silurian, i.e. Silurian older than any we  
know in the United States and not Richmond.

The corals collected today 2 miles east of  
Seen River are again connected with conglomerate.  
They have been rolled, are worn and hardly any  
are of large size. Then too the beds are wavy  
and undulating, even slightly cross bedded.

Returned to camp at one clock completely  
exhausted and shivering to the spine. Tried  
to get warm in camp and had some hot  
tea but all to no avail. Fever set in  
and I quaked for at least two hours and  
it was not until 6 P.M. that the fever left  
me. I had some tea and crackers for  
supper and then had 2 "Mother Seigel's  
Pills" and "Opertive". Then a hot water  
foot bath with wood ashes and a cup of  
hot water to drink. With this I retired for  
the night and soon got into a sweat. The

pills worked about midnight and had  
to get up twice. My tearing headache soon  
left, the fever was practically gone at 7  
P.M. and I rested fairly well during the  
night. But I am very weak and especially in  
the <sup>the signs of the fever</sup> ~~the signs of the fever~~  
I had a similar chill day before  
yesterday but by no means so decided.  
I am therefore wondering if I have a case  
of chills and fever or intermittent fever.  
If so I ought to have the fever again  
tomorrow. In this case I must get some  
quinine.

Seem River, Tuesday, June 23

Got up at six and while I am much better still I am very weak. No energy or activity desired. Had tea and crackers for breakfast.

Packed the few fossils collected yesterday so as to have all ready for sailing when the wind changes. It is still northwesterly but very gentle.

Remained at Seem River all day as the wind continues strong from the north-west.

Poirer caught a few good trout in a hole of the Seem River rapids. He had a good many more on his hook than he could land. More than half broke away from the hook. Had them for supper.

This evening the herons are fishing copiously. From an elevation of about 50 feet they dive into the sea and get their fish, then fly

forward low, circle back with the wind  
and sweep around rising in the air to about  
50 feet when they again plunge into the sea  
with a great splash. In this way they feed  
together in great quantity, often many hundred  
birds. When the capelin feed not only these  
birds, but also the <sup>trout</sup> salmon, and seals, and  
probably other animals. They are one of the great  
substitutions of food just as the cod is for the  
human species.

Spent the day resting beside a fire. This  
evening after the first supper I feel better. I  
hope the wind changes to morrow so that  
we may go west.

St. Marys Cliffs, Wednesday June 24

Did not rest the best last night.

Poirer called us at 4.30 and at 5 AM we  
now out into a very slight breeze for St Marys Cliffs.  
There is no saying when we will get there. From  
Sun River to Otter River it is about 4 miles and  
from the latter place it is 8 miles more to the  
cliffs.

St Anne cliffs are of moranic sands. Poirer  
says the same for St. Marys cliffs, but there is  
a well exposure about one mile to the east  
of the latter that we are heading for.

At 10.30 we go ashore to see the small ex-  
posures about one mile east of St. Marys cliffs  
and find the limestones to be a lighter color than  
those farther east with a little more shale part-  
ings. Fossils are very scarce except the corals  
as Favosites groenlandicus, Halysites catenulatus  
and Stromatopora. The horizon is evidently in the  
Cuvichidium barandi zone for the valves

of small specimens may be seen everywhere  
in the rock. Also saw the small bryozoan  
Helopora but nothing else.

I could make no better collection for I  
was very sea sick and vomiting at the time.  
I doubt however if I could have secured  
many other species than those mentioned.

Under the circumstances of constantly  
suffering sea sickness I concluded to get  
on to Elles Bay as the formation is all  
in the 100 feet of the Conchidium zone.  
He lay in the trough of the sea and  
finally in a cross current sea so that I  
became a very sick man. I do not know  
of a worse case of sea sickness and  
vomiting continued with shivering to the ribs.  
The same fever came on and though the  
cabin was hot I could not get warm.  
Drinks of cold water <sup>during the latter part of the fever</sup> did me much good  
and finally was able to lay without a  
fire in the cabin.

He arrived at Ellis Bay at 4.45 P.M.  
and Latmee went to Mr. Sandrean's  
house who took care of me for the  
night. First had a little scotch whisky  
and butter butter and Tea. Retired  
at 6 P.M. and soon fell asleep not  
to wake again until a little before day  
break about 2 o'clock.

In the morning I am still weak and  
feel the heaving of the sea. Sandrean  
gives me boiled lobster for breakfast  
with tea and I hope soon to be able  
to go to the west shore of Ellis Bay.

Ellis Bay, Thursday June 25.

At 7 A.M. started for the west shore.

At the most westerly locality directly opposite Mr. Meunier's house along the beach and reef one begins to find an abundance of fossils. The horizon is C3. We got all the fossils <sup>again</sup> collected on June 11 besides an abundance of Hindella. Also some interesting gastropods but these are always rare.

From here to the outer Cope = Cape Henry the distance appears to be less than 2 miles. One passes over all the beds into C12. In the latter beds we got a number of specimens which ~~stood~~ <sup>are</sup> the undoubted P. pyramidalis for a pentamerid. A little lower down in the same <sup>zone (= C11)</sup> we got large corals, bryozoans, and the slabs with bryozoa.

This series of beds is an alternation of limestones with much shale partings separated by others that have more shale or are all in a calcareous shale. In the weather these calcareous shales break down down into a mud but under water remain hard and then appear more as

limestone. It is very difficult to follow Richardson section without the aid of fossils just because the entire series is so much alike and more because his descriptions seem to be based on the nature of the strata in the reef, i. e. under water.

Left again at Mr. Sandhaus.

Got a letter from Brookwich. Left N. H. June 6 and got to Ellis Bay June 17. It has been here since then.

Ellis Bay Friday June 26

Started out for the west shore and  
Junction Cliff (= near Strawberry Cove) at 7 A.M.

As we got around Cape Henry so that we  
can see Strawberry Cove there is a low cliff <sup>Cape</sup> at the  
base of which are the domes of corals  
in C 11. <sup>described by Richardson</sup> The main coral is Halysites, next  
Tarassites, Stomatopora and the large Strep-  
telasma. Above these small reef domes  
the beds are undulating. Of the <sup>dome-</sup> reefs there  
are not many. Thus

In less than a mile further we begin  
to see along the beach the Anastrophis of zone  
C 3. Look over at Junction Cliff but  
before we get there my old trouble is upon

me. It is now quite apparent that  
I have a recurrence of my last years  
trouble but this year in the form of  
Intermittent fever. However I am  
now where I have quinine and can  
dose myself.

Collected nothing today but walked  
without intermission from Ellis Bay to  
Strawberry Cove, where I arrived <sup>at 10 o'clock</sup> and  
at once went to bed in Mrs. Duquet's  
house. Had him telephone to Mr.  
Malcolm that I was sick and to send a  
carriage for me. This arrived at 3 P.M.  
and in 10 minutes we were back  
to English Bay.

There is a fine overhanging cliff just  
east of Strawberry Cove but did not examine  
it.

I understand that Mrs. Martin the  
Loverna is to arrive on the King Edward  
next Tuesday or Wednesday. I  
am going to try to have all my notes of  
packed so that I may go with her  
and be near doctors in case I can  
not cure myself with the quinine.

It is too bad that this sickness  
should have come over me at this  
time. It has interfered with my work  
all the last week and so far as  
division D is concerned I only know  
the upper half. The lower half with  
Pentaneus Canandii I have missed com-  
pletely. So far as I know the lower is  
not a great one. The greatest loss will be  
my failure to see the lower beds of  
Division A but if I can I will try to  
see it.

Saturday June 27 English Bay.

Went to bed last night at 7 P.M. and slept fairly well until midnight. After that short slumbers and considerable wakes. Took quinine about every 3 hours and this morning I am quite sick and dizzy. Dressed and went to the breakfast table but could eat only one egg, a small piece of bread and a cup of coffee. The latter soon made my head ache all the more but in half hour it ceased.

After noon I feel a little better and am up writing these notes.

The day is fine and I hope Poirer will be able to sail to this place.

Poirer arrived with the boat at 4 P.M. Had vermicelli soup, a glass of milk and a piece of bread for lunch.

About every three hours I have a glass of  
milk and some quinine.

According to the past record of my  
fever if I have it not checked the first  
chills will begin tomorrow morning at  
6. I do hope I have it checked. If  
I have can then travel more safely  
to New Haven.

English Bay Sunday June 28.

Had no shells nor fow today.  
Very weak but began to get an appetite  
and eat a good dinner at Malouins  
and a hearty supper at Rouges.

Did not get up until 10 A.M. and  
after that all went better. Walked  
towards English Head and later with  
Rouges to Lake Plancan to gather  
some of the fresh water shells making  
the bottom. It is a mud with the top  
layer one mass of shells, of Physa  
in the main. Also got a number  
of yellow orchids Cypripedium.

The finest day and the warmest  
on Anticosti. Not too warm for me.

English Bay, Monday June 29.

Got up at six A.M. feeling only  
the effects of the quinine.

With the assistance of Poirer and  
another man we hope to make the  
necessary boxes and complete the  
packing of the prints gathered. For  
to-morrow the King Edward may be  
in when I want to be ready to go  
with her to Quebec.

At 2 P.M. we have four large  
and one small box packed and  
marked

Yale Museum  
Charles Schuchert  
New Haven  
Connecticut  
U. S. A.

I then start out to pay my bills. These are as follows:-

|                                  |        |
|----------------------------------|--------|
| William Rogers for 18 days.      | 18.00  |
| Poirer, son and boat for 20 days | 80.00  |
| Groceries and camp supplies.     | 48.53  |
| Boxes made to order              | 2.40   |
|                                  | <hr/>  |
| Present to Poirer                | 148.93 |
|                                  | 5.00   |
| Present to Rogers                | 2.00   |
|                                  | <hr/>  |
|                                  | 155.93 |

The collection is expensive considering the results but it is the best that I could do in the time and under the conditions of work. There too much of the material would be broken before it reaches New Haven.

For the many kind favors shown me by Mr. Malouin I am unable to make any returns. He entertains me as his guest.

A telegram came that the King Edward

would be in some time today. Finally  
another one that she would be at English Bay  
late in the afternoon. She came about  
10.30 P.M. and Mr. Martin came  
ashore. A very tall powerful man of about  
35 to 38 years, speaking fluently a good  
English. He soon began to ask questions  
about the geological possibilities in the way  
of economic products, asked about <sup>salt,</sup> gas,  
and oil, coal, and minerals in connection  
with the two large dikes that cut the island  
on the north shore. The only possibility I  
can see are for lime and cement, lime  
about South west Light out of the circular  
limestone, and cement out of the upper wall  
at Jupiter Cliff. Our conversation was  
very short as all was ready for me to  
go on board. This I did at 11.30 P.M.

The King Edward is a far better boat  
than the Sarag, larger and adapted

for passenger service.

Today was for Anticosti a very hot day and while I was packing this morning the wind brought a little perspiration. The natives however are showed the effects of the hot weather while I was as cool as a cucumber. The fly days will soon be on now and I have no doubts are on at South West Light.

My boxes are on board the King Edward and so my Anticosti trip closes successfully. My recent fever seems to be gone and I am easing on the quinine.

On the Gulf, Tuesday, June 30.

Did not sleep well at all last night due to the shelling of the boat. The cabins are all astern and one feels the constant working of the machinery.

Got up at 8 and had breakfast which is much better cooked and served on this steamer than on the Savoy.

Around the Mingan Islands and again along the North Shore one sees very distinctly an elevated beach / probably of glacial material / fronting the higher land. Along the North Shore beyond this elevated beach extend the higher lands, a rugged country of mountains in their last stage of wear before being reduced to rounded featureless elevations. When did this elevation occur? Was from the top eroded the former Ordovician and

Silurian deposits? The structure now  
is something like this.



As we go along the Minjan Islands one  
sees fine high cliffs of the Canadian dolomite  
and at the end of one island there is a  
large quarry. The island rises to one level  
apparently a former peneplain, this elevation  
being 200 feet or more. I saw no houses  
on the islands, but as the settlement Es-  
quimaux Point is close by we could  
arrange to get a boat at this place.

There is aboard a party of six  
New Indians going to Natasquan our  
last stop eastward to fish for salmon.

One of the party has been coming  
to this place for 18 years although the  
camp, which is 14 miles up the river,  
was built about 30 years ago. They have  
a great lot of traps and fishing traps  
and a crowd man to attend the camp.  
And all this for recreation and pleasure.

Since I am aboard the King  
Edward last night all my traps have  
been in the wrong direction. At 8 P. M.  
we turn around and head for Quebec.

A fine day, cold, a little fog and  
a ground swell.

Saw a lot of Indians at Natashquan.  
A small lot of men out landishly dressed  
in the styles of the store and merchandise.  
All display some bright colors, a remnant  
of old.

On the Gulf, Wednesday July 1-

Slept the usual troubled sleep.

Got up at 7 and had breakfast at 8.

At 9 we are at Esquimaux Point and as the day is bright we have a fine view of the country. Here live about 175 families. We again see the cliffs of dolomite and if fossils are present it would be easy going about here from Esquimaux Point. The point is a low sand bar while the background is high and mountainous. The islands are table topped with the strata about horizontal or point slightly undulating. Took several pictures of them.

At 11 A.M. we are at Mingan. Again sand on the north shore but heavy bedded dolomite on the island opposite. Have one picture of the village.

At 11.30 we are at Long Point. 40 faps of salt goes ashore. The Laurentian Mts to the north, 20 miles away are up about 3000 feet at the highest and down to 2000 feet at the low. One sees plainly Anticosti from here.

The fire land along the coast there is low  
not over 20 feet high. It is low for many miles  
inland, in places up to 30 miles. Back of this  
is the plain near the Laurentian Mts. Is this  
fire land to be interpreted the same as the  
Ordovician plain about Quebec?

The wind has let down and we  
started for St. Johns River at 6.30. There  
was no real necessity for this long delay  
as I heard it discussed by the Engineer  
and Purser. At 8 P.M. we are at St. Johns.  
He did not get the Salmon and Halibut  
until 2 o'clock and did not again get  
away until 4 A.M.

On the Gulf Thursday July 2.

As we were anchored all night in front of St. Johns River, the river owned by Jim Hill to fish Salmon in, had a quiet night's rest.

Got up as usual in a steamer at 7.30 and had breakfast at 8. We are now going by Shell Lake. The shore here is of crystalline rock, low probably nowhere higher than 100 feet but much in the distance are as elsewhere the higher mts of the Laurentians.

At 9 A.M. we are at Little River a settlement with about 20 houses and no church.

As we proceed along all the morning there is no more to be seen of the flat front land. The country to the north is rugged and hilly but not high. What has become of the Ordovician plain seen farther east.

Philip Holliday  
To Holliday Bros, Quebec - Can.

J. G. Strange

Sabatie, Can: Labrador

P. Q.

Teacher

Louis Bruneau

151 St. Peter Street, Quebec

Send to all the journal rivers.

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At 12.45 we are at Moisie River one of the largest rivers of this coast. It is also the finest Salmon River. On each side of the river for some miles there is a low sandy coast while back of the same about 20 miles again are the high Canadian mountains. At 2.30 we leave Moisie River

At 4 P.M. we enter the Seven Islands and first stop at Clarke City Landing, then the Whale Factory and then the village of Seven Islands. Here we put ashore

about 20 indians. What they intend to do  
here I could not learn. Men, women,  
children and dogs with considerable  
baggage.

The seven Islands are of crystalline  
rocks, the mountains rising up to nearly  
1000 feet. Along the North Shore there are  
some sand flats.

The weather is extraordinarily fine  
ever since last Saturday. Sunshine  
and hardly any wind.

On the Gulf, Friday, July 3.

My birth day and 50 years completed. In these years much has been accomplished and yet under proper conditions how much more could have been done. I still have 10 good years before me so far as teaching and research work is concerned. At Yale I should have good opportunities to make good.

At 8 A.M. we are at Goddard a string of about 20 houses on the beach in front of high crystalline mountains. The South shore looks up high and mountainous with a brown fire-land. If there ever was any Mesozoic or an Eocene here there is nothing now in the topography to indicate it. It seems to me more probable that the western

sea did not attain so far east.

More sportsmen have come aboard during the night and as Godbout is the last stop we are now direct on our way to Quebec where we expect to arrive in not over 24 hours.

Lenata Aldrich is on board one of the Salmon fishermen. He got aboard at Moise River.

Along the North Shore opposite Little Metis the mountains are all of one level dissected here and there. Is this to be interpreted as an elevated peneplain? If so this elevation must have been very recent. This peneplain begins not far west of Godbout.

Bio has a high mountain back of the harbor. Altitude probably over 1000 feet. Along the face is a vertical cliff in a section of either sandstone or dolomite.

At 7 P.M. we are in front of Red Island Light ship no 3 and have a fine view into the wide mouth of the great Saguenay River. The mountains begin to be more rugged and high some miles east of the River and appear to get more and more bold westward. There is no flat sky line, it is all up and down but is rounded from the south shore is a flat topped land gradually rising higher from the river. Nothing of the Appalachians can be seen from the river.

It seems to me very probable that the Laurentians are of recent elevation and that over the top once extended the Ordovician and possibly later rocks. Now they are all eroded except where preserved in down faulted places as the Lake St. John region.

Quebec, July 4. Saturday

The steamer King Edward arrived  
this morning at 7 and <sup>d</sup>at once went  
ashore. Stopping at the Clarendon Hotel.

Had a hair cut, shoes repaired  
and then purchased one dozen silver  
tea spoons for Mr and Mrs Malouin  
on Anticosti. Sent it by registered  
mail. A letter too.

Then wrote letters to Rosie, Albert,  
Phil, Bostwick and Corcoran.

After lunch got the boxes at Victoria  
Hotel, took them down to the steamer and  
from there took the seven boxes to the  
Quebec Central freight office and shipped  
all in bond. Paid 50¢ to have the papers  
made out. Charges collect.

three quarters of a mile to the next river  
bench. Here too the soil is dark and pebbly  
in the main of St. Lawrence River but there is more  
acidic sand and many large crystalline  
glacial boulders rounded in. Going up this  
rise once the soil becomes thinner and  
more sandy with more smaller boulders  
many more or less angular and broken. It is  
near here that the Laurentian rocks begin.

It is now clear from the lay of the  
Ordovician rocks that the Laurentians  
have recently broken through them. From  
their top have long since been stripped the  
Ordovician beds.

The river terraces are very plain along  
the northern shore and must extend up to  
at least 400 feet above the present level  
of the St. Lawrence. Offshore on the island  
of Orleans they are not so plain.

Montmorency Falls is quite recent for  
the gorge it has cut back from the river  
is not over 1000 feet.

Quebec Monday July 6.

Spent the morning at Leris looking up possible conglomerates and photographed those at and near the Point.

Left on the Quebec Central at 3 P.M. for New Haven. After we get beyond St. Joseph and on the upper land the country is undulating with no high ground. Soon we come upon the Chaudière a large river in a deep narrow valley.

About St. Marys there is higher country but still no Mt.

At Beauce where we cross the Chaudière. The river is in a deep and somewhat wide valley 300 feet higher is the upper undulating land. After crossing we at once rise up the northern side and overlook the wide and deep rich valley of the Chaudière, here a small stream.

At East Broughton we are in metamorphic

and asbestos mines. About Brighton  
there are lots of to nearly 1000 feet.

At Hetford Mines there is a great new  
development of asbestos. Half the houses are  
new. The mines are on each side of the  
head and are surface workings.

More and even greater asbestos mines at  
Black Lake. Here it is quite mountain-  
ous.

Between Coleraine and Lake Agassiz  
we are out of the Mts and in an undulating  
slightly formed region. This also seems to  
be region of the watershed. Many are lakes.

Are the Mts about Black Lake to  
be regarded as the barrier on the western  
side of which are the Miss. Quaternary  
deposits? The Atlantic Ordovician  
is of course on both sides. I see however  
no Mts to the west, only to the east of the  
lakes. At Gladesville junction low Mts  
appear to the west.

At Shubert we are in the midst of  
a fine farming country and a rolling land.  
But there are none in sight.

New Haven July 7 Tuesday

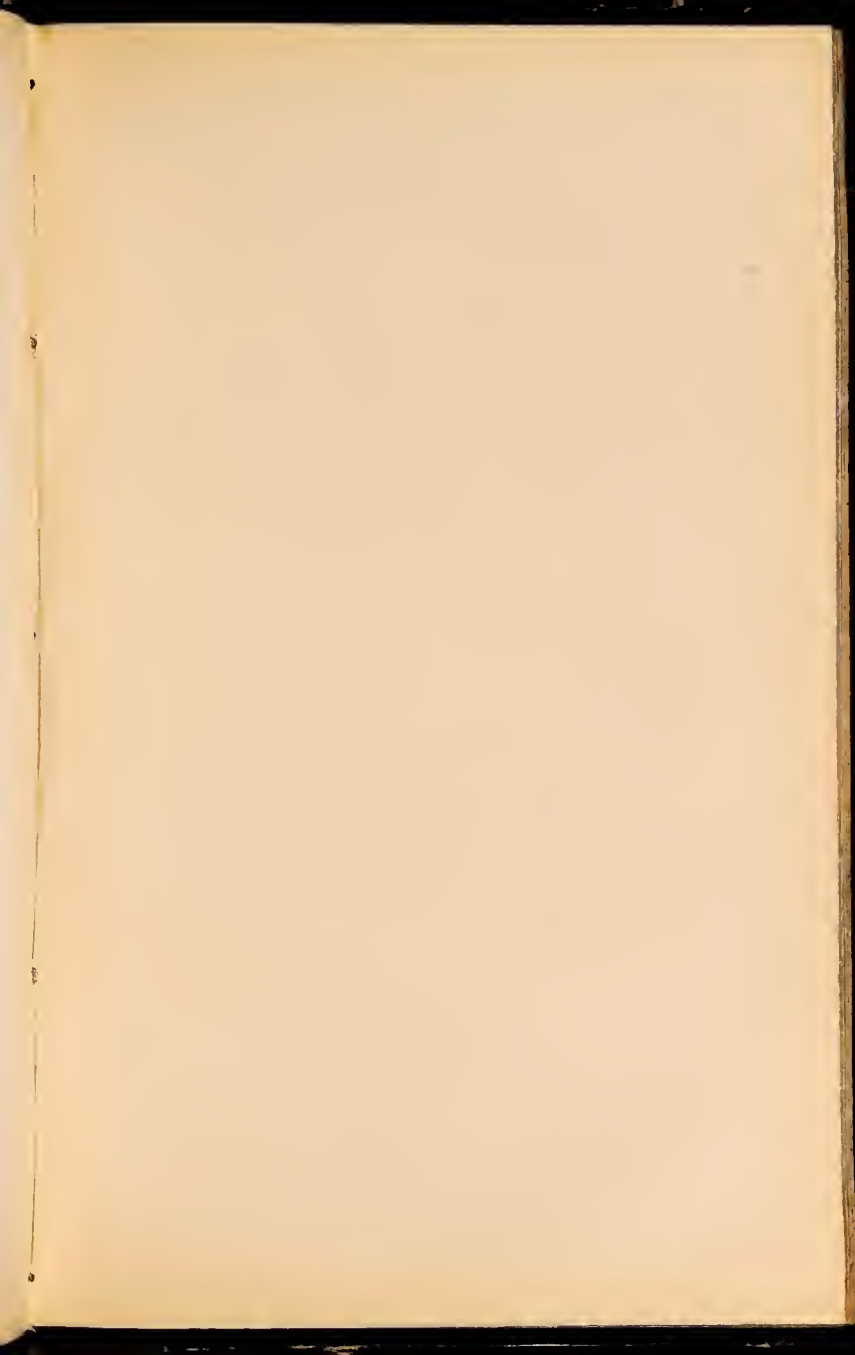
Arrived at 5.47 A.M.

At my desk at 8.

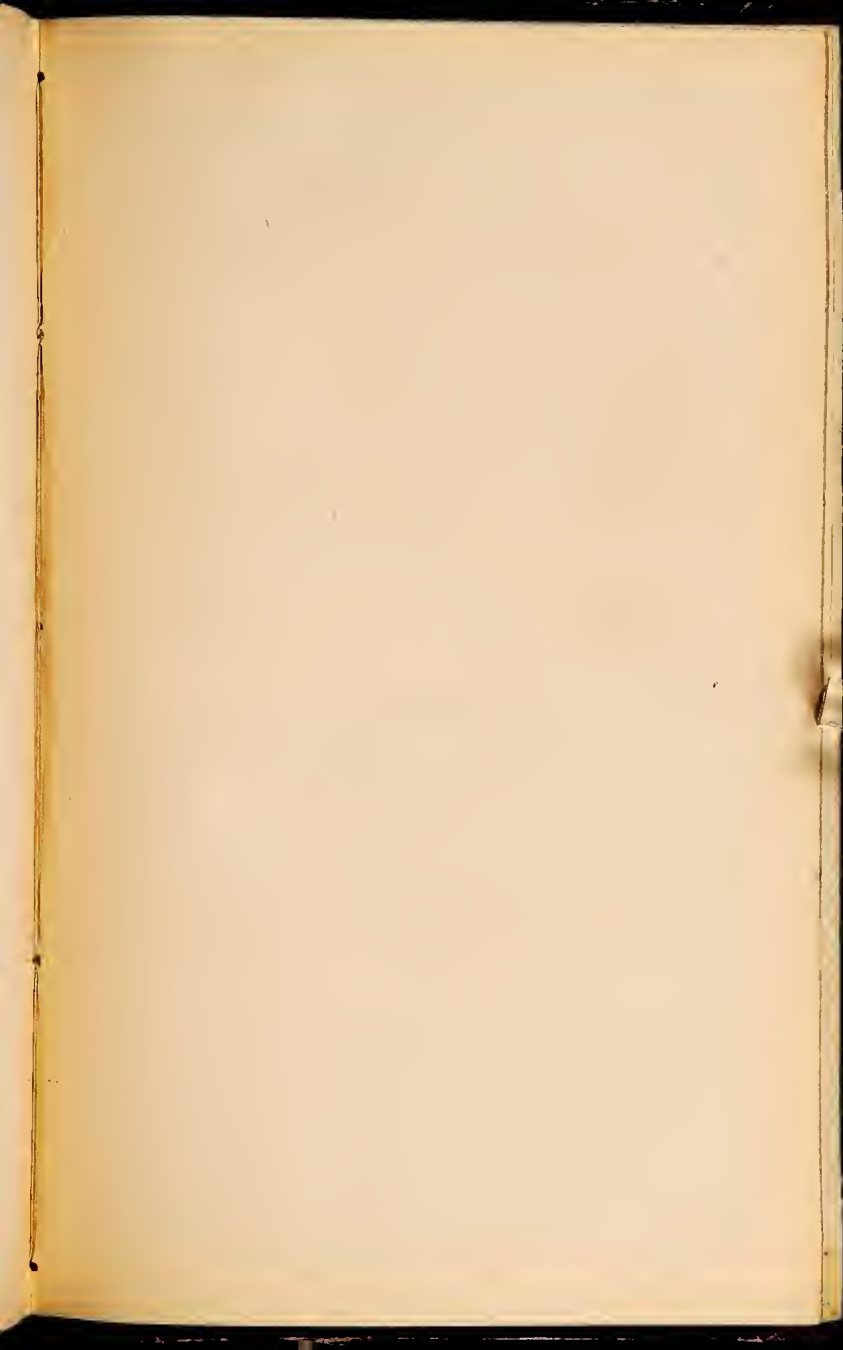
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Fraisses = Strawberry  
Hirondelle = Swallow  
Graines = Seed  
de l'Ours = Bear  
Chute = Jump

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1150  
72  

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1222

# Fever

|              |   |                   |              |
|--------------|---|-------------------|--------------|
| First attack |   | Sat. June 20.     | About 2 P.M. |
| See.         | " | Mon. " 22         | " 12 noon    |
| Third        | " | Tues " 24         | " 10 A.M.    |
| Fourth       | " | Friday " 26       | " 8 " "      |
| Fifth        | " | broken by quinine |              |

||||



Started Tuesday June 9

Ret. Saturday " 28.

20

4.

\$ 80 for boat.

Rogers 18 days = 18.

20

46.50

72

180.50

